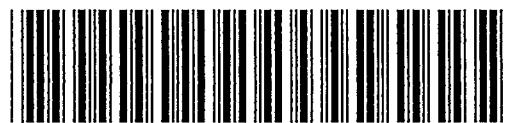


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DocumentID NONCD0002873

Site Name NELLO TEER QUARRY-DENFIELD

DocumentType Progress/Monitoring Rpt (PRGMON)

RptSegment 1

DocDate 4/12/2004

DocRcvd 2/20/2007

Box SF1044

AccessLevel PUBLIC

Division WASTE MANAGEMENT

Section SUPERFUND

Program IHS (IHS)

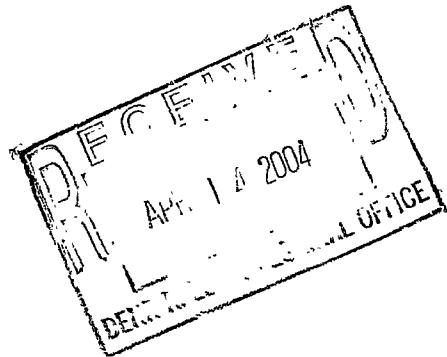
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Quantum Environmental, Inc.

April 12, 2004

Mr. Eric Rice
NC Department of Environment and Natural Resources
Groundwater Section
1628 Mail Service Center
Raleigh, NC 27699

Re: HRC® Pilot Study Report
Nello Teer Quarry Site
Durham, Durham County
Injection Well Permit No. WIO500046
Quantum Project No. 0013-94-012



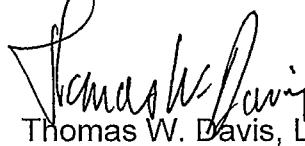
Dear Mr. Rice:

Enclosed please find one copy of the HRC® Pilot Study Report concerning the above-referenced site. This report discusses the procedures followed and the results obtained following the injection of HRC® at the site in February 2003.

If you have any questions regarding this report please contact me at (919) 852-3595.

Sincerely,

QUANTUM ENVIRONMENTAL, INC.



Thomas W. Davis, L. G.
Project Hydrogeologist

L04-097

Enclosure

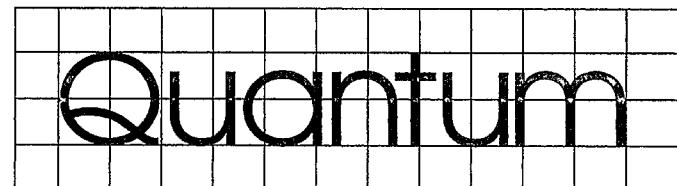
HRC® PILOT STUDY REPORT
Former Nello Teer Quarry
5013 Denfield Street
Durham, North Carolina
Groundwater Incident #9357

Prepared for:
Hanson Aggregates
2300 Gateway Centre Blvd.
Morrisville, North Carolina 27560

Prepared by:
Quantum Environmental, Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 23, 2004

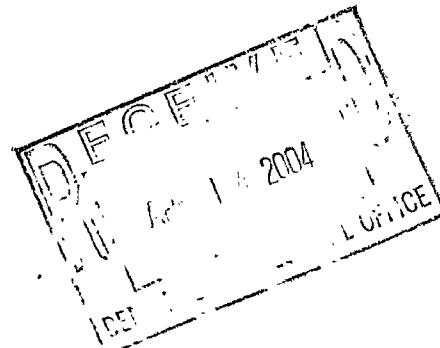
Quantum Project No. 013-94-012



HRC® Pilot Study Report
Nello Teer Quarry
5013 Denfield Street
Durham, North Carolina
Durham County
Groundwater Incident #9357

Date of Report: March 23, 2004
Site Priority Ranking: 110B
Responsible Party: Nello Teer Company
5013 Denfield Street
Durham, NC 27560
(919) 477-2413
Current Owner: Hanson Aggregates
2300 Gateway Centre
Morrisville, NC 27560
(919) 380-2600
Consultant: Quantum Environmental, Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607
(919) 852-3595

Latitude: 36° 3.45' North **Longitude:** 78° 53.10' West



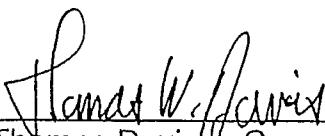

Thomas Davis, L.G.
Project Hydrogeologist



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1.0 Introduction

During the week of February 17, 2003, Quantum Environmental, Inc. (Quantum) personnel initiated a Hydrogen Release Compound (HRC®) pilot study at the former Nello Teer (Teer) Quarry in Durham, North Carolina (Figure 1). This was done in accordance with Injection Well Permit number WIO500046 dated January 9, 2003 concerning the injection of HRC® at the site. The pilot study was performed to determine the effectiveness of the HRC® in accelerating the breakdown of chlorinated solvent compounds in a limited area of the site. This report covers the injection event, presents the subsequent sampling and analysis of groundwater wells in the area of the injection event, and evaluates the effectiveness of the HRC® in reducing solvent residual concentrations at the site.

The Nello Teer Quarry is an inactive aggregate mining and processing facility located on Denfield Street (State Road 1641) in Durham County, North Carolina (Figure 2). The property has been in operation as a crushed stone quarry and asphalt plant since the 1940s; however, at this time it is used for aggregate staging and equipment maintenance only, with no active mining operations occurring.

Soil and groundwater contamination by petroleum hydrocarbons at the site appear to have originated from gasoline, diesel, and waste oil underground storage tanks (USTs) formerly located on-site. Additional groundwater contamination, by chlorinated hydrocarbons, appears to have originated from an asphalt-testing laboratory formerly operated by the North Carolina Department of Transportation (NCDOT). Quantum completed construction of and started operating a groundwater remediation system in October 1997. To date over 13 million gallons of groundwater have been recovered and successfully treated by this remediation system. This treatment system has been very successful at reducing petroleum contamination in the groundwater, and somewhat successful in reducing the solvent contamination in the groundwater at the site.

The HRC® pilot study was planned to test the effectiveness of the material to degrade chlorinated solvent residuals in the groundwater in a limited area of the site. HRC® works to accelerate the natural degradation of chlorinated compounds such as tetrachloroethene (PCE), trichloroethene (TCE), and their daughter (breakdown) products, by providing a source of hydrogen molecules (lactic acid) for the reductive dechlorination of these compounds. Ultimately, the toxic compounds are degraded to non-toxic compounds such as ethane and ethane.

2.0 Fieldwork

The week of February 17, 2003 a Hydrogen Release Compound (HRC®) pilot study injection event took place in a 40-foot by 40-foot grid centered on monitoring wells MW-29 and MW-29i (Figure 3). 3,000 pounds of HRC® were injected into the subsurface through a total of 25 injection points. The buckets of HRC® were heated in a water bath using hot water from a pressure washer to facilitate the pumping of the material.

The original plan was to use direct push drilling to advance boreholes to a depth of 33 feet. Heated HRC® would then be pumped into the subsurface through the drilling rods. This technique was abandoned after initial direct push drilling attempts could not advance past a depth of 23 feet. The approach was then modified so that air drilling would be used to complete 2-inch diameter boreholes to depths of 33 feet. Heated HRC® (120 pounds) would then be injected into the subsurface through the boreholes using a pump. Serious problems with the air drilling technique were encountered shortly after starting. The highly unconsolidated nature of the upper approximately 15 feet of the subsurface resulted in air (and as a result probably HRC®) bubbling up at the surface due to the short-circuiting of the upper portion of the formation. Thus, control over emplacement of the HRC® was compromised. As a result, a decision was made to switch drilling techniques in an attempt to better control the emplacement of the HRC® material. Small diameter (2.75-inch ID, 6-inch OD) augers were then used to complete boreholes prior to the injection of the material. Initially, a packer was employed to seal off the upper portion of each borehole so that the HRC® could be injected under pressure, but short-circuiting appeared to be occurring. The HRC® was eventually merely pumped to the base of each borehole through the augers. The program was modified to alternate borehole depths between 33 feet and 23 feet in an attempt to spread the emplacement of HRC® throughout the upper aquifer. Ultimately a total of 18 injection wells were completed to 33 feet and 7 were completed to 23 feet. All injection holes were back-filled with cuttings and capped with bentonite chips.

Since prior to the injection event, recovery wells RW-5, 6, 7 and 9 have not operated (except to collect samples in April and October 2003 for the bi-yearly sampling reports), to maximize the effects of the HRC® on the aquifer. These recovery wells may resume operation in the near future.

2.1 Groundwater Sampling Methodology

Prior to the injection event, and at intervals recommended by Regenesis (the manufacturer of HRC®) and dictated in the injection well permit, Quantum sampled six groundwater wells at the site to monitor the effectiveness of the injection event. Monitoring wells MW-18, 25, 25i, 29, and 29i as well as recovery well RW-5 were initially sampled on February 13, 2003 to determine the conditions of the aquifer before the injection event. MW-18 was utilized as an upgradient well, the injection event was centered on wells MW-29 and MW-29i and MW-25 and MW-25i were downgradient of MW-29 and MW-29i, and RW-5 was used to

monitor the conditions downgradient of the injection grid. Table 1 summarizes the well construction details for each of the groundwater wells included in the sampling network.

During each groundwater sample collection event, water levels were measured in all of the selected monitoring wells using an electronic water level meter. The expansion plugs were removed from each well and enough time was allowed before collecting the measurements to permit the water level in the monitoring wells to equilibrate with the ambient atmospheric pressure. The measurements from the February 2003 background sampling event were collected to an accuracy of 0.01 feet and are summarized in Table 2.

In order to prevent cross contamination from one well to another while collecting water levels, Quantum personnel donned new, clean, non-reactive gloves prior to measuring each well. The electronic water level meter probe and tape were decontaminated prior to collecting measurements from each well. All monitoring wells sampled were purged by removing at least three well volumes of groundwater, or until the wells went dry, using new disposable bailers and new nylon rope. After allowing groundwater levels to equilibrate to or near static water levels after purging, water samples were collected for analysis. Samples were placed in labeled, laboratory prepared containers, stored on ice in a cooler, and transported under Chain of Custody to Environmental Science Corporation, a North Carolina certified laboratory. Copies of the Chain of Custody forms for the February 2003 sampling event are included in Appendix A. Copies of the Chain-of-Custody forms for successive sampling events are included in Appendixes B through F.

The samples collected during each sampling event were analyzed using EPA Method 601 for volatile organic compounds, as well as for ethane, ethene and methane using EPA Method 8015M, chloride, nitrate and sulfate by EPA Method 9056, alkalinity (EPA Method 310.2), carbon dioxide (EPA Method 406B), ferrous iron (EPA Method 3500Fe-B) and dissolved iron and dissolved manganese (EPA Method 6010B), sulfide (EPA Method 9030B), total organic carbon (EPA Method 9060) and organic acids, including acetic, butyric, lactic, propionic and pyruvic acid.

Subsequent sampling events occurred after the injection event on March 21, May 20, July 24, November 4, 2003 and January 14, 2004. Depth to water measurements for these sampling events are summarized in Tables 3 through 7.

Groundwater field parameters were only collected during the last sampling event in January 2004. This information is summarized in Table 8.

3.0 Groundwater Sampling Results

3.1 Groundwater Flow

Potentiometric data collected from the monitoring wells during the initial sampling event indicates that the groundwater flow direction for the shallow aquifer is to the south with an average hydraulic gradient of 0.04 ft/ft. Figure 4 presents a potentiometric surface map of the shallow aquifer in the pilot study area during the February 2003 sampling event. Figures 5 through 9 illustrate the direction of groundwater flow for the shallow aquifer during each of the subsequent sampling events. These figures demonstrate that the groundwater table is fairly flat in the site of the injection event with subtle changes in the direction of flow occurring over time. Historical data, including data collected during groundwater sampling events at the entire site in April and October 2003, indicates that the overall shallow aquifer flow at the site is generally to the south, while the data collected during these sampling events indicates that there is some localized flow to the north also occurring in the area of the injection event.

3.2 Groundwater Constituents and Characteristics

Copies of the laboratory reports for each of the six groundwater sampling events are included in Appendixes A through F and are summarized in Tables 9 through 14. Graphs of the concentrations of selected chlorinated constituents over time are included in Appendix G. Table 15 contains a summary of all analytical data collected over the course of the pilot study.

The cooler containing two samples collected during the November 2003 sampling event was misplaced by the shipper, resulting in the loss of the samples collected from wells MW-18 and RW-5. The organic acid samples for these two wells, in addition to the other sampling locations, were shipped separately and were analyzed and reported as requested on the Chain-of-Custody.

3.3 Discussion of Groundwater Analytical Results

In general, the laboratory analytical results from the sampling events indicate that levels of chlorinated hydrocarbons detected in the groundwater wells within the area of the HRC® pilot study have changed markedly over the course of the twelve-month pilot study. Further examination of the analytical results indicates that the elevated detection limits reported for several of the parameters analyzed for essentially precluded the evaluation of these compounds for the majority of the monitoring period. These compounds included the five volatile fatty acids (acetic, butyric, lactic, propionic, and pyruvic acid), ethane and ethene.

The only compound remaining in any of the wells monitored in the study area is vinyl chloride, other than a minor first-time concentration of carbon tetrachloride detected in the

last sampling event in monitoring well MW-29. All the other chlorinated solvent residual compounds previously detected in the monitoring wells within the pilot study area have degraded to concentrations that are below the State 2L Groundwater Standards, as a result of halorespiration (reductive dechlorination) caused by the injection of HRC®, or to vinyl chloride, the final toxic daughter product associated with the breakdown of chlorinated solvents. As a result, vinyl chloride concentrations have increased across the site since the initiation of the pilot study. It is anticipated that the process of dechlorination will continue within the area of the pilot study possibly through the summer of 2004. This is expected to continue to break down the concentrations of vinyl chloride detected in the January 2004 sampling event, resulting in lower concentrations of this compound in the near future. In addition, the potentially elevated dissolved oxygen content present in the groundwater at the site should also assist with the degradation of the vinyl chloride present once the affects of the HRC® cease. Since vinyl chloride is the final toxic daughter product in the chain of breakdown products associated with chlorinated compounds, further degradation of this material could result in the groundwater in the area of the pilot study containing no compounds above the State 2L Groundwater Standards.

Specifically, background monitoring well MW-18 remained free of compounds above the 2L Standards over the course of the pilot study. MW-25 experienced a significant decrease in total chlorinated organic volatile compounds (C VOCs) over the course of the pilot study from 629.7 µg/l to 164.8 µg/l. The concentrations of 1,1-dichloroethene, trichloroethene, tetrachlorethene and 1,1,1-trichloroethane that were above the 2L Standards prior to the injection event all decreased over the course of the study to concentrations that are below Standards. The concentration of vinyl chloride increased over the course of the study from 16.0 µg/l to 34.0 µg/l and vinyl chloride remains the only compound above the 2L Standards.

MW-25i also experienced significant decreases in C VOCs over the course of the pilot study. 1,2-dichloroethane, 1,1-dichloroethene, trans-1,2-dichloroethene and trichloroethene were all present in concentrations above the 2L Standards prior to the injection event but are now present in concentrations below the Standards. Vinyl chloride is the only compound present above 2L Standards in this well at the end of the pilot study.

It is interesting to note that no compounds other than carbon tetrachloride were detected above 2L Standards over the course of the pilot study in monitoring well MW-29. Carbon tetrachloride was detected only during the January 2004 sampling event.

MW-29i experienced an increase in total chlorinated volatile organic compounds (C VOCs) over the course of the pilot study, but only vinyl chloride was present above the State Standards when sampled in January 2004. The concentration of vinyl chloride increased from 2.0 µg/l in February 2003 to 41.0 µg/l in January 2004. The concentrations of 1,1-dichloroethane and 1,1,1-trichloroethane also increased over the course of the pilot study but are not present above 2L Standards.

At the time of the latest sampling event, recovery well RW-5 contained only vinyl chloride above the State Standards, and it increased in concentration from 7.6 µg/l to 29.0 µg/l over the course of the pilot study. The concentrations of 1,1-dichloroethene and trichloroethene that were present prior to the injection event in concentrations above the 2L Standards have decreased to acceptable concentrations.

Finally, it is of great interest to note that the only well at the entire site containing any chlorinated solvents above the 2L Groundwater Standards other than vinyl chloride when sampled during the most recent sampling event (either January 2004 or October 2003) was RW-6. (Questionable first-time reports of chloroform in RW-3, RW-7, RW-8 and RW-9 were excluded from this evaluation.) RW-6 contained 1,1-dichloroethane (12.0 µg/l versus a 2L Standard of 7.0 µg/l) and trichloroethene (6.50 µg/l versus a Standard of 2.8 µg/l) when sampled in October 2003.

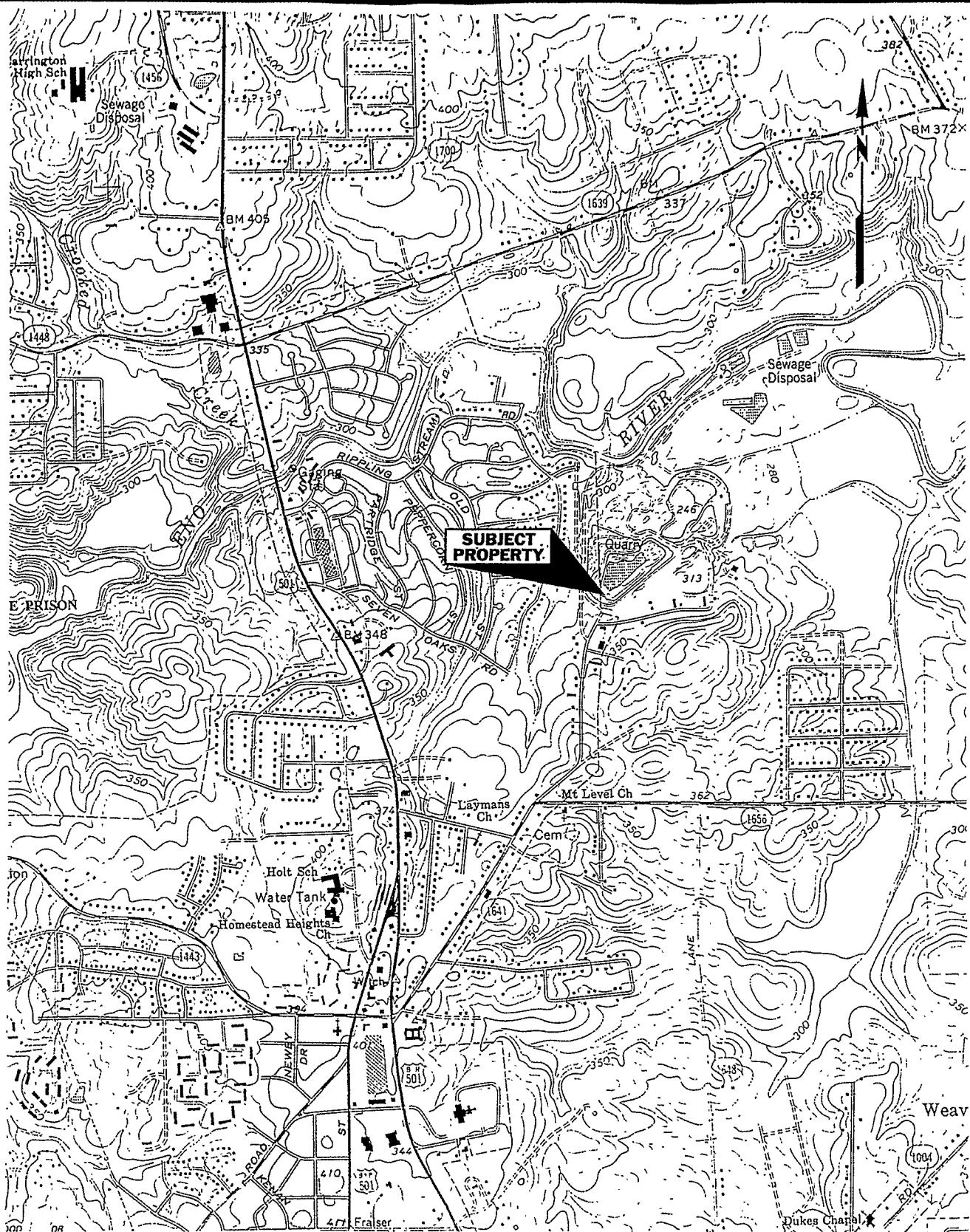
4.0 Summary and Recommendations

Over the 12-month course of the pilot study, chlorinated hydrocarbon concentrations have significantly decreased in the area of the HRC® pilot study, with the exception of vinyl chloride. The HRC® appears to have accelerated the degradation of the chlorinated solvent residuals in the vicinity of the injection grid to the vinyl chloride stage. Further degradation of the vinyl chloride present in this area is possible due to the HRC® remaining in this area. Further degradation of the vinyl chloride is also possible due to the potentially elevated concentrations of dissolved oxygen present in the groundwater in this area. Subsequent monitoring of the groundwater in this area will determine the ultimate impact of this injection event but the information gathered to date indicates that the injection of HRC® in this area had a highly beneficial impact on the solvent residuals present.

Finally, this material should be seriously considered for injection near RW-6 as this well is now the only well in this area that contains any chlorinated solvent residuals other than vinyl chloride in a concentration above the State 2L Standards. A limited injection of HRC® in the vicinity of RW-6 would likely be sufficient to degrade the solvents in this well to a point where natural attenuation of the remaining vinyl chloride in the groundwater will be all that is necessary to achieve closure of this area.

Figures

Figures



**Site Location Map
Nello Teer Quarry
5013 Denfield St.
Durham, NC**

Ref: NW Durham Quadrangle

Quantum

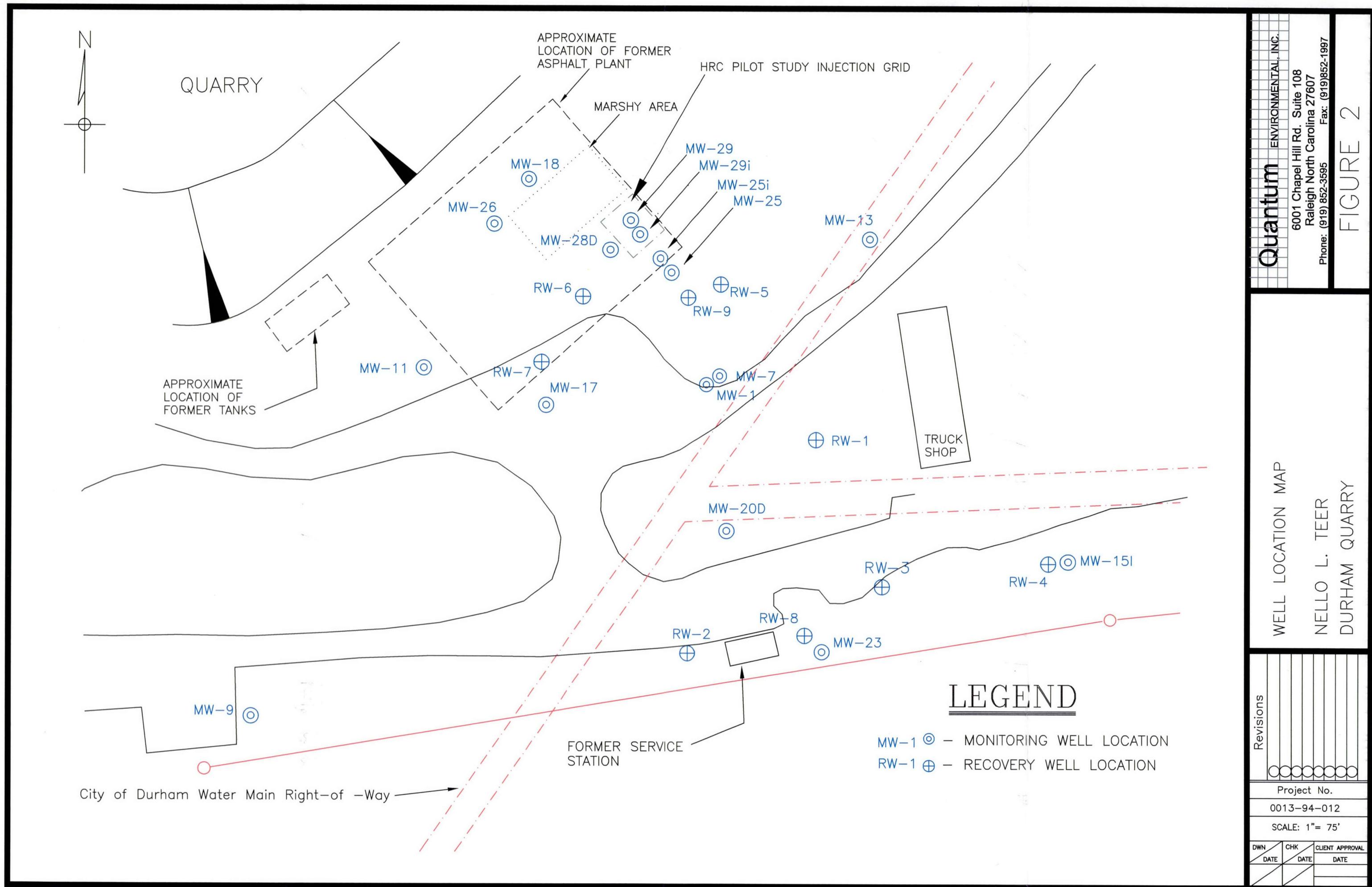
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Raleigh, NC 27607

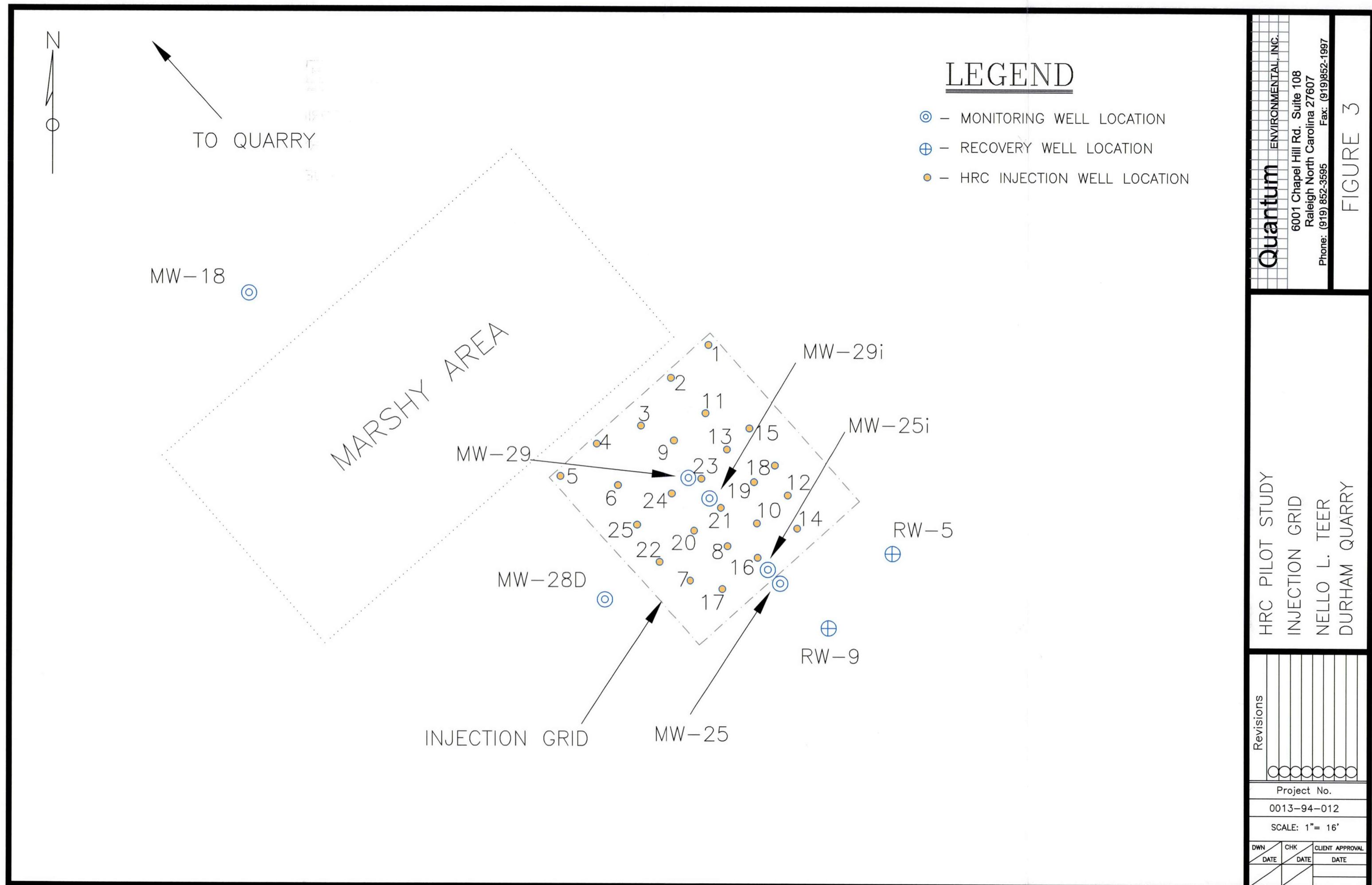
Phone: (919) 852-3595 Fax: (919) 852-1997

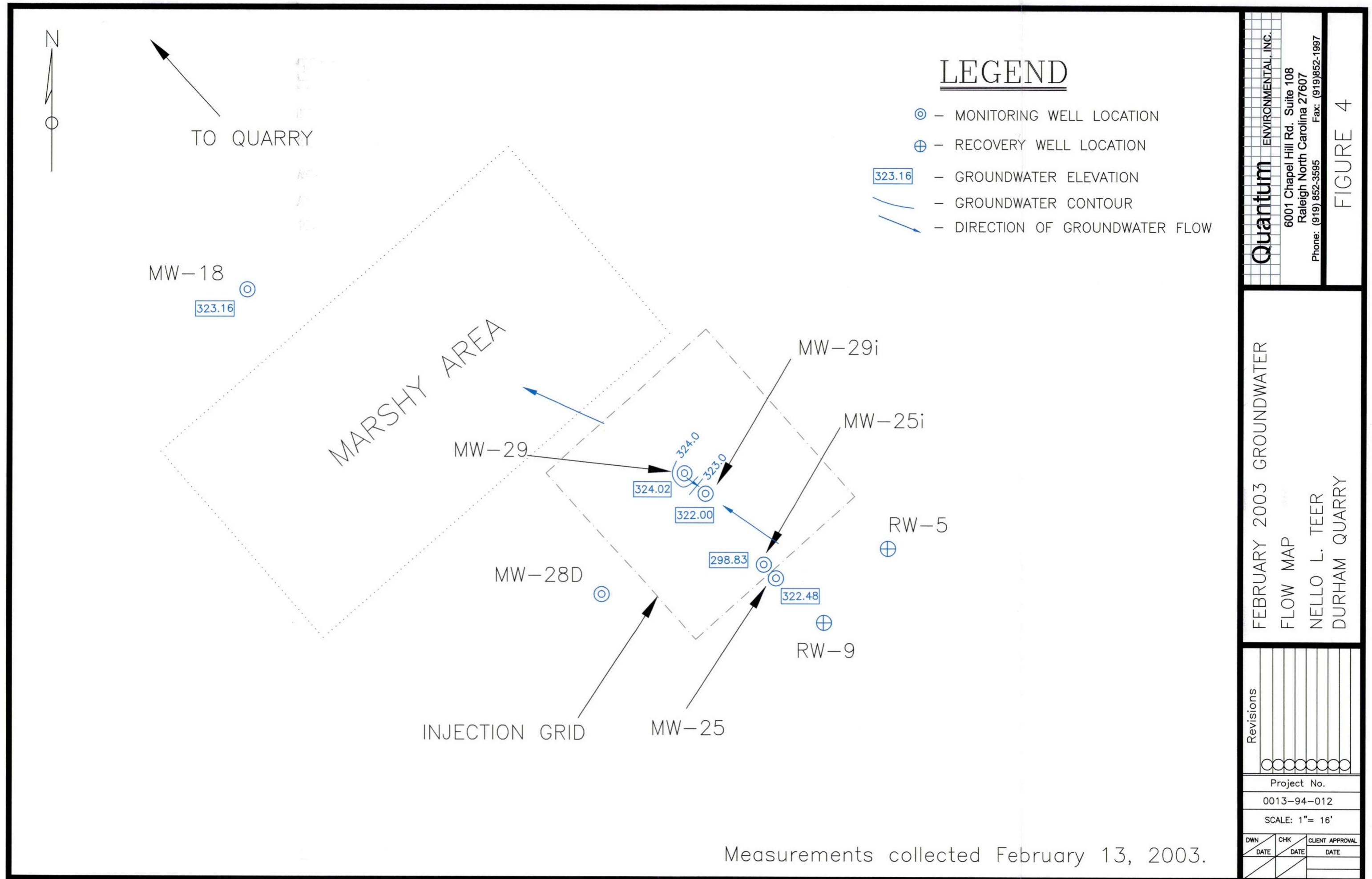
FIGURE 1

SCALE: 1" = 2000'

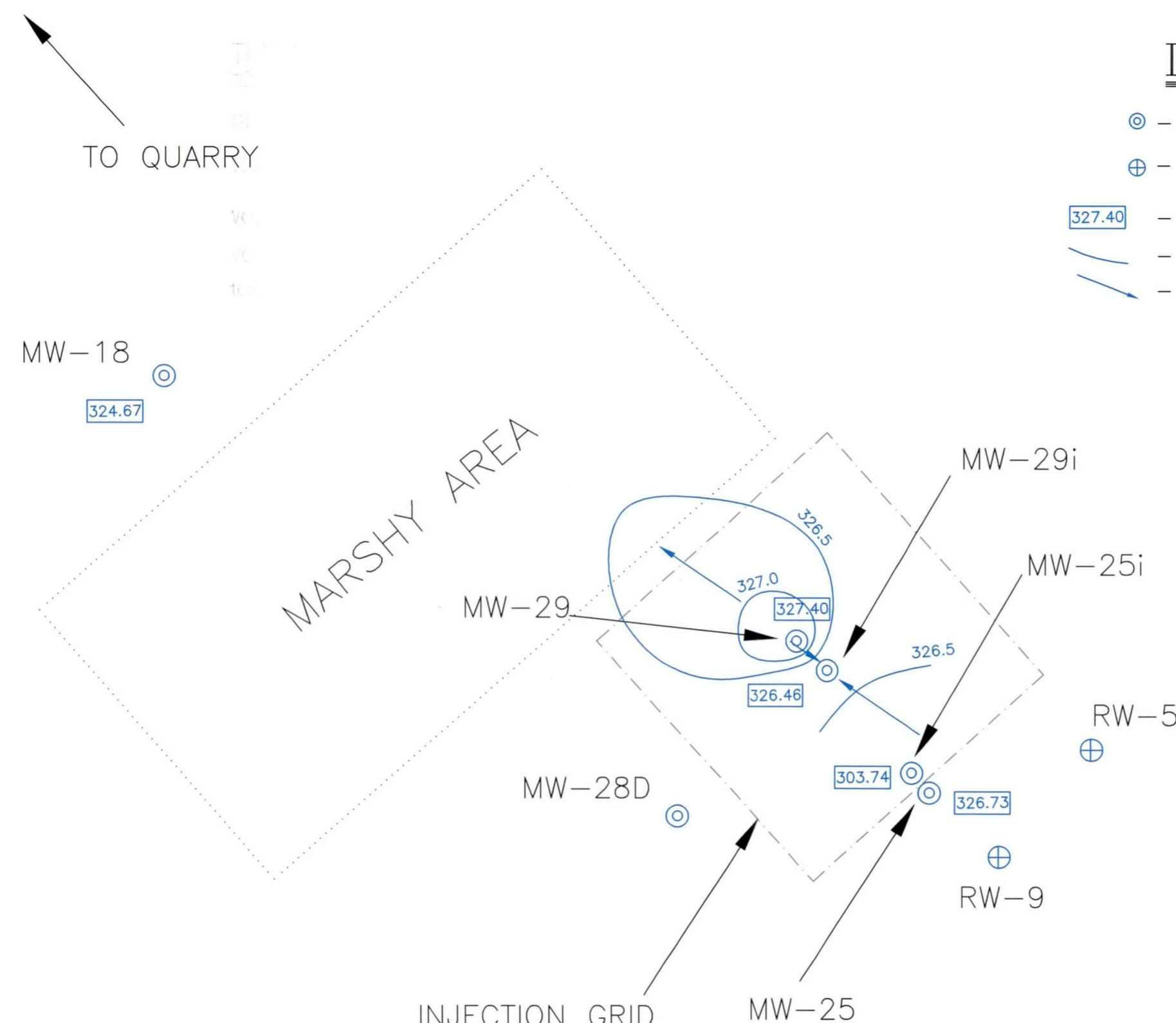
Proj. No.: 0013-94-012







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Measurements collected March 21, 2003.

MARCH 2003 GROUNDWATER
FLOW MAP
NELLO L. TEER
DURHAM QUARRY

Revisions	
○	○
○	○
○	○
○	○
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○	○
○	○

Project No.

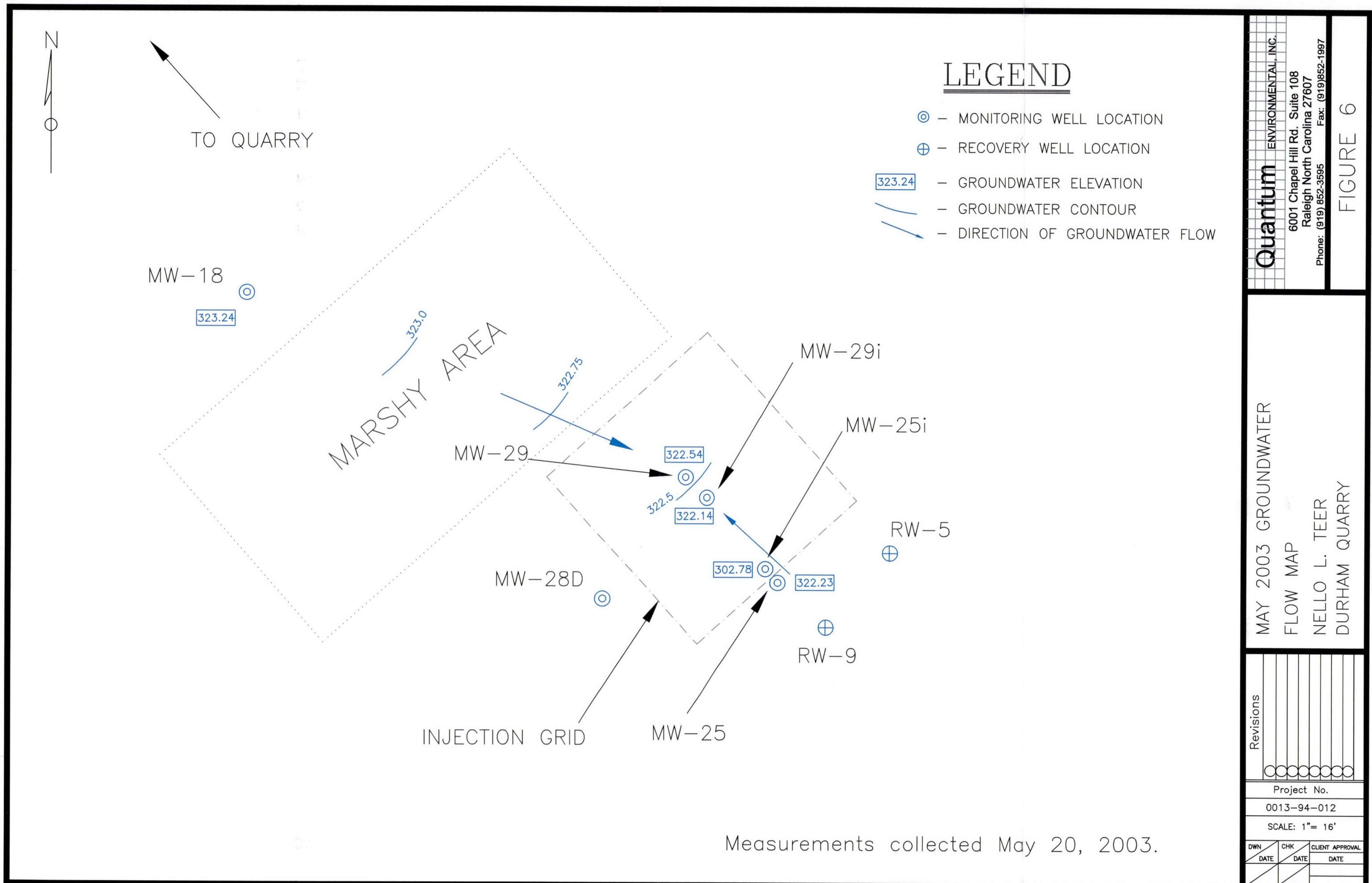
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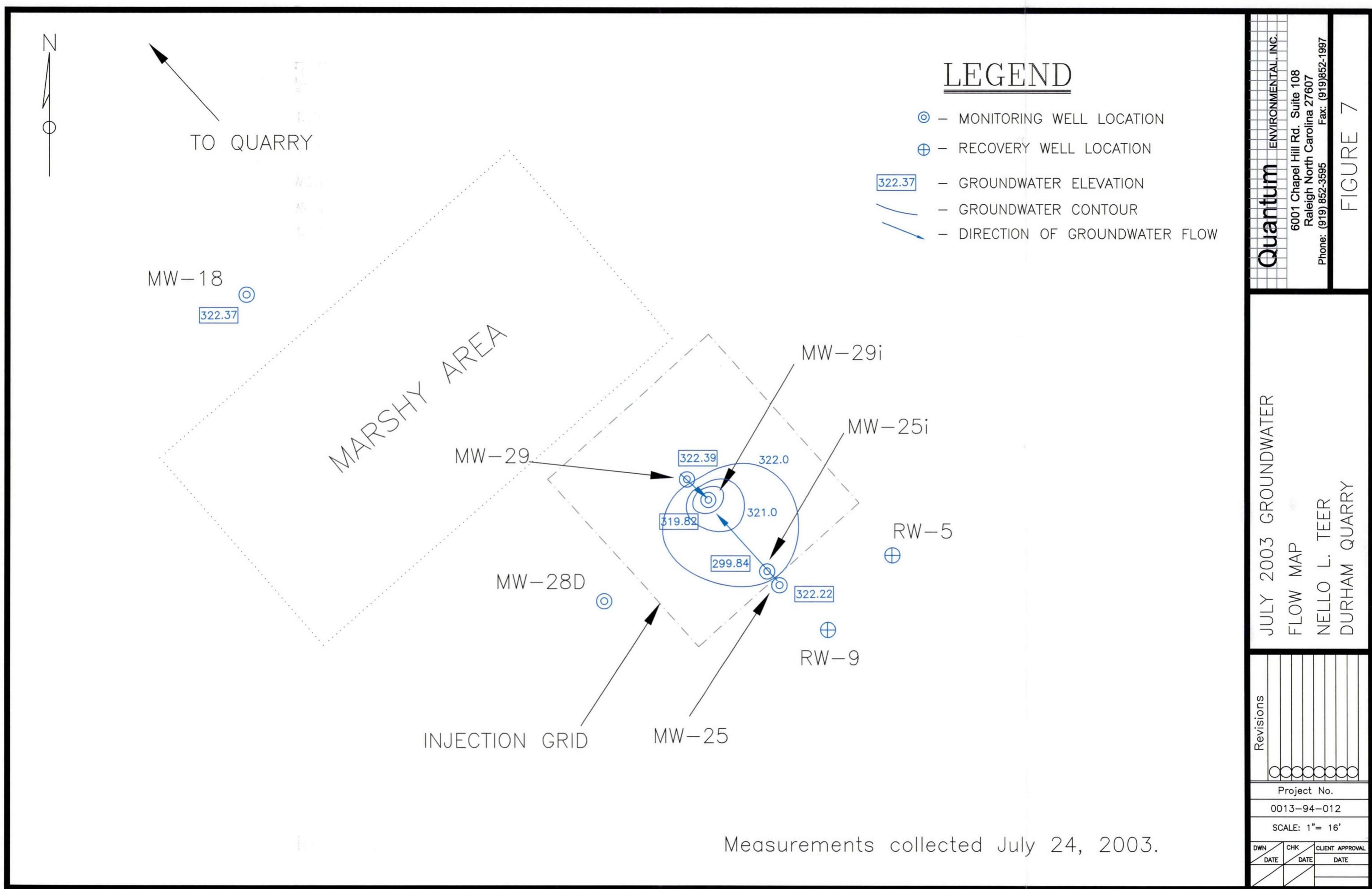
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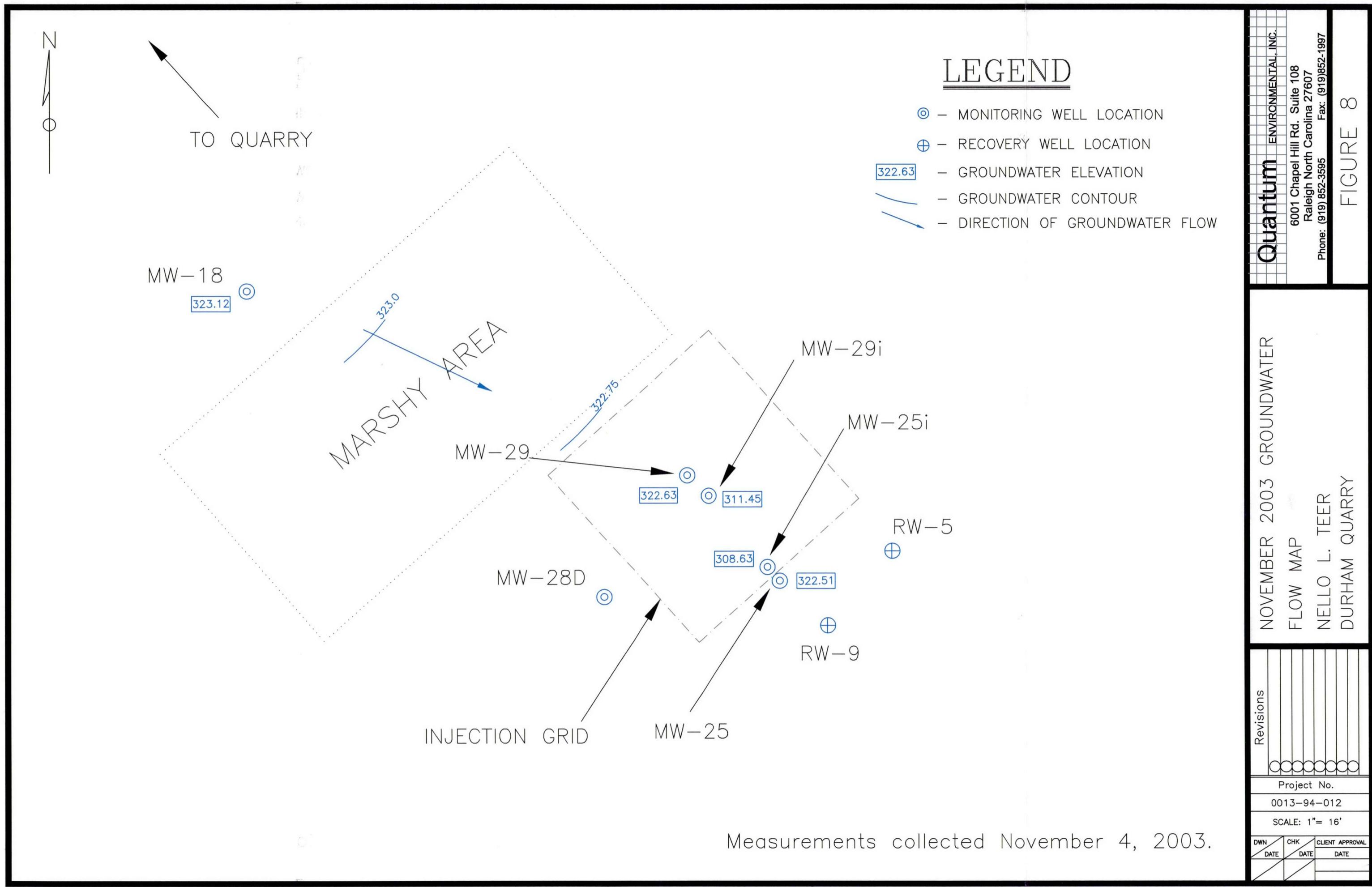
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DATE	DATE	DATE

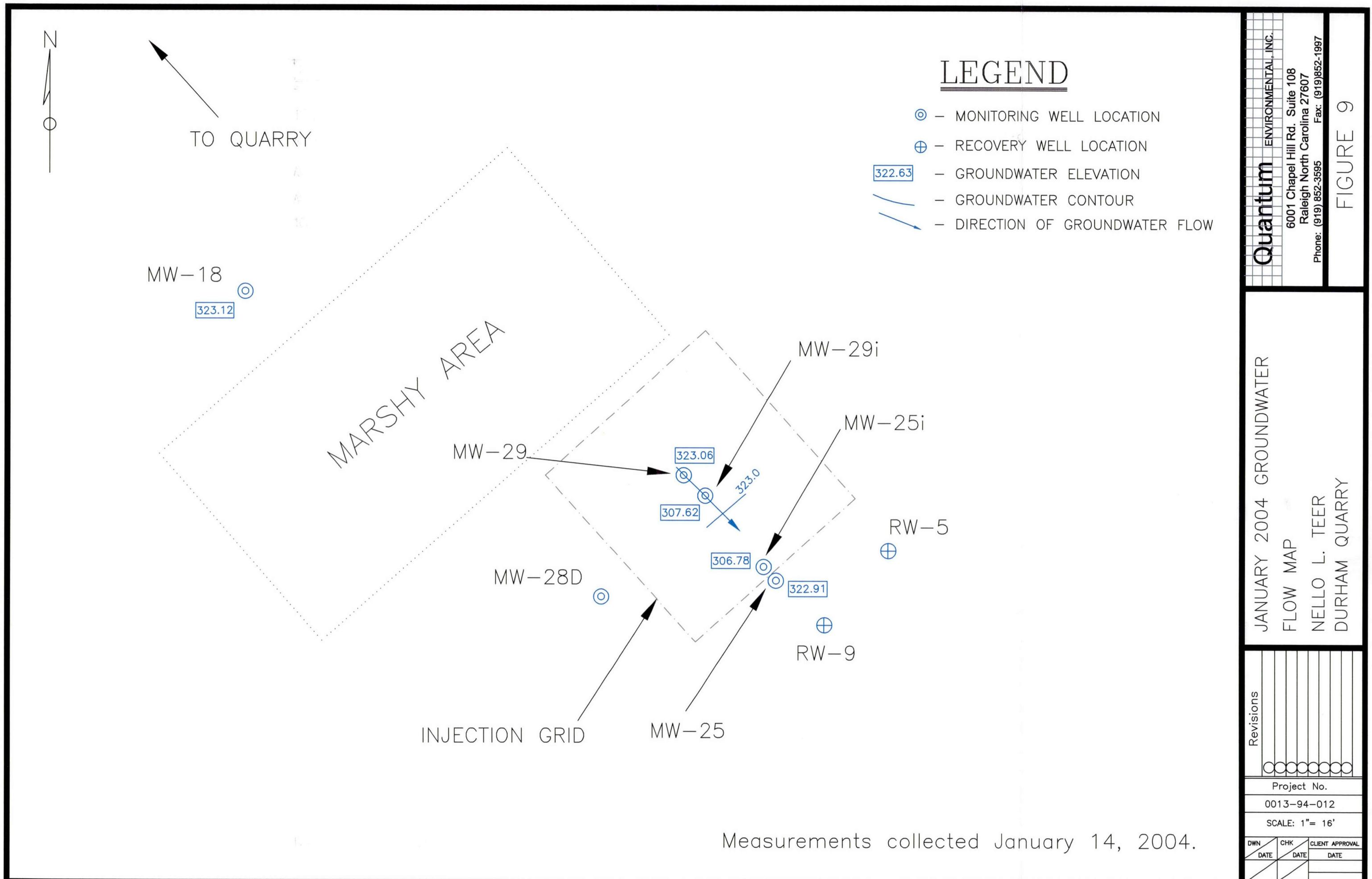
Quantum ENVIRONMENTAL, INC.
6001 Chapel Hill Rd. Suite 108
Raleigh North Carolina 27607
Phone: (919) 852-3595
Fax: (919) 852-1987

FIGURE 5









Tables

Tables

Table 1. Well Construction Details
HRC® Pilot Study
Nello Teer Quarry, Denfield St.
Durham, North Carolina

Well ID	Screen Interval ^a
MW-18	3.0 - 13.0
MW-25	4.0 - 14.0
MW-25i	18.0 - 33.0
MW-29	4.0 - 14.0
MW-29i	18.0 - 33.0
RW-5	5.0 – 35.0

^a feet below land surface

Quantum Project No. 0013-94-012

Table 2. Well and Water Level Data
February 13, 2003 Sampling Event
HRC® Pilot Study
Nello Teer Quarry, Denfield St.
Durham, North Carolina

Well ID	Top of Casing Elevation ^a	Screen Interval ^b	Depth to Water ^c	Water Table Elevation ^a
MW-18	328.43	3.0 - 13.0	5.27	323.16
MW-25	328.92	4.0 - 14.0	6.44	322.48
MW-25i	329.03	18.0 - 33.0	30.20	298.83
MW-29	328.89	4.0 - 14.0	4.87	324.02
MW-29i	328.74	18.0 - 33.0	6.74	322.00
RW-5	NA	5.0 - 35.0	NA	NA

^a surveyed elevation, referenced to mean sea level

^b feet below land surface

^c feet below top of casing

Quantum Project No. 0013-94-012

Table 3. Well and Water Level Data
March 21, 2003 Sampling Event
HRC® Pilot Study
Nello Teer Quarry, Denfield St.
Durham, North Carolina

Well ID	Top of Casing Elevation ^a	Screen Interval ^b	Depth to Water ^c	Water Table Elevation ^a
MW-18	328.43	3.0 - 13.0	3.76	324.67
MW-25	328.92	4.0 - 14.0	2.19	326.73
MW-25i	329.03	18.0 – 33.0	25.29	303.74
MW-29	328.89	4.0 - 14.0	1.49	327.40
MW-29i	328.74	18.0 – 33.0	2.28	326.46
RW-5	NA	5.0 - 35.0	NA	NA

^a surveyed elevation, referenced to mean sea level

^b feet below land surface

^c feet below top of casing

Quantum Project No. 0013-94-012

Table 4. Well and Water Level Data
May 20, 2003 Sampling Event
HRC® Pilot Study
Nello Teer Quarry, Denfield St.
Durham, North Carolina

Well ID	Top of Casing Elevation ^a	Screen Interval ^b	Depth to Water ^c	Water Table Elevation ^a
MW-18	328.43	3.0 - 13.0	5.19	323.24
MW-25	328.92	4.0 - 14.0	6.69	322.23
MW-25i	329.03	18.0 – 33.0	26.25	302.78
MW-29	328.89	4.0 - 14.0	6.35	322.54
MW-29i	328.74	18.0 – 33.0	6.60	322.14
RW-5	NA	5.0 - 35.0	NA	NA

^a surveyed elevation, referenced to mean sea level

^b feet below land surface

^c feet below top of casing

Quantum Project No. 0013-94-012

Table 5. Well and Water Level Data
July 24, 2003 Sampling Event
HRC® Pilot Study
Nello Teer Quarry, Denfield St.
Durham, North Carolina

Well ID	Top of Casing Elevation ^a	Screen Interval ^b	Depth to Water ^c	Water Table Elevation ^a
MW-18	328.43	3.0 - 13.0	6.06	322.37
MW-25	328.92	4.0 - 14.0	6.70	322.22
MW-25i	329.03	18.0 – 33.0	29.19	299.84
MW-29	328.89	4.0 - 14.0	6.50	322.39
MW-29i	328.74	18.0 – 33.0	8.92	319.82
RW-5	NA	5.0 - 35.0	NA	NA

^a surveyed elevation, referenced to mean sea level

^b feet below land surface

^c feet below top of casing

Quantum Project No. 0013-94-012

Table 6. Well and Water Level Data
November 4, 2003 Sampling Event
HRC® Pilot Study
Nello Teer Quarry, Denfield St.
Durham, North Carolina

Well ID	Top of Casing Elevation ^a	Screen Interval ^b	Depth to Water ^c	Water Table Elevation ^a
MW-18	328.43	3.0 - 13.0	5.31	323.12
MW-25	328.92	4.0 - 14.0	6.41	322.51
MW-25i	329.03	18.0 – 33.0	20.40	308.63
MW-29	328.89	4.0 - 14.0	6.26	322.63
MW-29i	328.74	18.0 – 33.0	17.29	311.45
RW-5	NA	5.0 - 35.0	NA	NA

^a surveyed elevation, referenced to mean sea level

^b feet below land surface

^c feet below top of casing

Quantum Project No. 0013-94-012

Table 7. Well and Water Level Data
HRC® Pilot Study
January 14, 2004 Sampling Event
Nello Teer Quarry, Denfield St.
Durham, North Carolina

Well ID	Top of Casing Elevation ^a	Screen Interval ^b	Depth to Water ^c	Water Table Elevation ^a
MW-18	328.43	3.0 - 13.0	5.31	323.12
MW-25	328.92	4.0 - 14.0	6.01	322.91
MW-25i	329.03	18.0 – 33.0	22.25	306.78
MW-29	328.89	4.0 - 14.0	5.83	323.06
MW-29i	328.74	18.0 – 33.0	21.12	307.62
RW-5	NA	5.0 - 35.0	NA	NA

^a surveyed elevation, referenced to mean sea level

^b feet below land surface

^c feet below top of casing

Quantum Project No. 0013-94-012

Table 8. January 14, 2004 Field Parameters Summary
HRC® Pilot Study
Nello Teer Quarry, Denfield Street
Durham, North Carolina

PARAMETER	MW-18	MW-29	MW-29i	MW-25	MW-25i	RW-5
pH	6.29	6.84	6.92	6.99	6.88	7.28
ORP, mV	-64	-50	-99	-105	-80	-92
Conductivity, mS/m	76	4.1	82	95	97	85
Turbidity, NTU	-8.6	48.0	>999	319	539	60.3
Dissolved Oxygen, mg/l	8.80	5.47	4.59	6.06	5.49	8.53
Temperature, °C	11.9	11.0	17.6	15.6	17.9	17.2
Salinity, %	0.0	0.0	0.0	0.0	0.0	0.0
Total Dissolved Solids, g/l	0.49	0.27	0.52	0.61	0.61	0.53

Quantum Project No. 0013-94-012

**Table 9. Groundwater Sample Results Summary for MW-18
HRC® Pilot Study
Nello Teer Quarry, Denfield Street
Durham, North Carolina**

PARAMETER	2/13/03	3/21/03	5/20/03	7/24/03	11/4/03	1/14/04	2L LIMITS
Chloroethane	<1.0	<1.0	<1.0	<1.0	NA ^a	<1.0	2,800
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	700
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.38
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	7.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	70
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	70
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.70
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	200.00
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	1.00
Trichloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	2.80
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.015
Total CVOCs	<1.0	<1.0	<1.0	<1.0	NA	<1.0	--
Methane	2,300	<1,000	3,800	2,400	NA	3,300	NS ^b
Chloride	4,500	3,900	4,100	3,000	NA	3,200	250,000
Ethane	<1,000	<1,000	<1,000	<1,000	NA	<100	NS
Ethene	<1,000	<1,000	<1,000	<1,000	NA	<100	NS
Acetic Acid	<3,400	<3,400	<3,400	<3,400	<10,000	<10	NS
Butyric Acid	<6,000	<12,000	<12,000	<12,000	<25,000	<25	NS
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10	NS
Propionic Acid	<6,100	<6,100	<6,100	<6,100	<10,000	<10	NS
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10	NS
Ferrous Iron	8,400	2,200	1,400	5,100	NA	12,000	NS

All Values in µg/L.

^a NA Indicates Not Analyzed due to Shipper Error.

^b NS Indicates No Standard.

**Table 10. Groundwater Sample Results Summary for MW-29
HRC® Pilot Study
Nello Teer Quarry, Denfield Street
Durham, North Carolina**

PARAMETER	2/13/03	3/21/03	5/20/03	7/24/03	11/4/03	1/14/04	2L LIMITS
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2,800
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	700
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.38
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.0
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.70
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	200.00
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.00
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.80
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.015
Total CVOCS	0	0	0	0	0	0	--
Methane	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	NS ^a
Chloride	2,500	2,900	2,600	<1,000	1,400	<1,000	250,000
Ethane	<1,000	<1,000	<1,000	<1,000	<100	<100	NS
Ethene	<1,000	<1,000	<1,000	<1,000	<100	<100	NS
Acetic Acid	<3,400	<3,400	<3,400	<3,400	<10,000	<10,000	NS
Butyric Acid	<6,000	<12,000	<12,000	<12,000	<25,000	<25,000	NS
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10,000	NS
Propionic Acid	<6,100	<6,100	<6,100	<6,100	<10,000	<10,000	NS
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10,000	NS
Ferrous Iron	260	230	570	2,800	1,100	560	NS

All Values in µg/L.

^a NS indicates No Standard.

**Table 11. Groundwater Sample Results Summary for MW-29i
HRC® Pilot Study
Nello Teer Quarry, Denfield Street
Durham, North Carolina**

PARAMETER	2/13/03	3/21/03	5/20/03	7/24/03	11/4/03	1/14/04	2L LIMITS
Chloroethane	<1.0	<1.0	<1.0	3.9	20.0	9.9	2,800
1,1-Dichloroethane	6.1	9.7	13.	50.0	70.0	66.0	700
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.38
1,1-Dichloroethene	12.0^a	<1.0	18.0	10.0	6.4	6.7	7.0
cis-1,2-Dichloroethene	5.0	4.2	10.0	4.1	3.2	3.5	70
trans-1,2-Dichloroethene	12.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.70
1,1,1-Trichloroethane	3.2	3.2	3.4	6.2	<1.0	21.0	200.00
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.00
Trichloroethene	4.4	5.7	2.3	2.4	2.1	2.2	2.80
Vinyl chloride	2.0	1.4	2.5	41.0	39.0	41.0	0.015
Total CVOCs	44.7	24.2	49.2	117.6	140.7	150.3	--
Methane	<1,000	<1,000	1,300	3,000	3,900	1,700	NS ^b
Chloride	4,400	16,000	13,000	16,000	7,800	6,000	250,000
Ethane	<1,000	<1,000	<1,000	<1,000	<100	<100	NS
Ethene	<1,000	<1,000	<1,000	<1,000	<100	<100	NS
Acetic Acid	<3,400	<3,400	<3,400	97,000	23,000	<10	NS
Butyric Acid	<6,000	23,000	<12,000	110,000	<25,000	<25	NS
Lactic Acid	<3,200	<1,200	<1,200	120,000	<10,000	<10	NS
Propionic Acid	<6,100	130,000	<6,100	87,000	<10,000	<10	NS
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10	NS
Ferrous Iron	2,400	1,800	6,300	12,000	11,000	12,000	NS

All Values in µg/L.

^a Bold Text Indicates Concentration in Excess of State Standard.

^b NS Indicates No Standard.

**Table 12. Groundwater Sample Results Summary for MW-25
HRC® Pilot Study
Nello Teer Quarry, Denfield Street
Durham, North Carolina**

PARAMETER	2/13/03	3/21/03	5/20/03	7/24/03	11/4/03	1/14/04	2L LIMITS
Chloroethane	15.0	<1.0	<1.0	10.0	120.0	68.0	2,800
1,1-Dichloroethane	150.0	28.0	110.0	170.0	64.0	48.0	700
1,2-Dichloroethane	<5.0	<1.0	<1.0	<5.0	1.4^a	<1.0	0.38
1,1-Dichloroethene	110.0	27.0	52.0	6.4	1.9	4.1	7.0
cis-1,2-Dichloroethene	51.0	8.7	34.0	<5.0	<1.0	2.0	70
trans-1,2-Dichloroethene	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	70
Tetrachloroethene	7.7	<1.0	<1.0	<5.0	<1.0	<1.0	0.70
1,1,1-Trichloroethane	240.0	31.0	29.0	15.0	<1.0	7.2	200.00
1,1,2-Trichloroethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	1.00
Trichloroethene	40.0	9.1	2.4	<5.0	1.6	1.5	2.80
Vinyl chloride	16.0	3.7	16.0	82.0	14.0	34.0	0.015
Total CVOCs	629.7	107.5	243.4	283.4	202.9	164.8	--
Methane	<1,000	<1,000	1,700	1,400	1,600	1,500	NS ^b
Chloride	11,000	20,000	20,000	53,000	42,000	14,000	250,000
Ethane	<1,000	<1,000	<1,000	<1,000	<100	<100	NS
Ethene	<1,000	<1,000	<1,000	<1,000	<100	<100	NS
Acetic Acid	<3,400	<3,400	72,000	170,000	40,000	<10	NS
Butyric Acid	<6,000	<12,000	22,000	<12,000	<25,000	<25	NS
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10	NS
Propionic Acid	<6,100	<6,100	140,000	100,000	<10,000	<10	NS
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10	NS
Ferrous Iron	86	4,800	9,100	20,000	14,000	15,000	NS

All Values in µg/L.

^a Bold Text Indicates Concentration in Excess of State Standard.

^b NS Indicates No Standard.

**Table 13. Groundwater Sample Results Summary for MW-25i
HRC® Pilot Study
Nello Teer Quarry, Denfield Street
Durham, North Carolina**

PARAMETER	2/13/03	3/21/03	5/20/03	7/24/03	11/4/03	1/14/04	2L LIMITS
Chloroethane	<1.0	<1.0	<1.0	12.0	110.0	130.0	2,800
1,1-Dichloroethane	74.0	28.0	120.0	170.0	39.0	70.0	700
1,2-Dichloroethane	1.0^a	<1.0	<1.0	<1.0	1.4	<1.0	0.38
1,1-Dichloroethene	93.0	35.0	50.0	3.9	1.7	3.8	7.0
cis-1,2-Dichloroethene	31.0	14.0	30.0	1.2	<1.0	2.1	70
trans-1,2-Dichloroethene	93.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.70
1,1,1-Trichloroethane	130.0	27.0	30.0	10.0	<1.0	8.1	200.00
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.00
Trichloroethene	28.0	9.1	<1.0	<1.0	1.1	2.0	2.80
Vinyl chloride	11.0	3.6	31.0	89.0	13.0	72.0	0.015
Total CVOCS	461.0	116.7	261.0	286.1	166.2	288.0	--
Methane	<1,000	<1,000	1,500	<1,000	1,200	1,400	NS ^b
Chloride	16,000	13,000	26,000	20,000	15,000	13,000	250,000
Ethane	<1,000	<1,000	<1,000	<1,000	<100	<100	NS
Ethene	<1,000	<1,000	<1,000	<1,000	<100	<100	NS
Acetic Acid	<3,400	<3,400	54,000	66,000	<10,000	<10	NS
Butyric Acid	<6,000	<12,000	<12,000	36,000	<25,000	<25	NS
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10	NS
Propionic Acid	<6,100	<6,100	100,000	34,000	<10,000	<10	NS
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10	NS
Ferrous Iron	6,200	1,100	700	590	1,600	980	NS

All Values in µg/L.

^a Bold Text Indicates Concentration in Excess of State Standard.

^b NS Indicates No Standard.

**Table 14. Groundwater Sample Results Summary for RW-5
HRC® Pilot Study
Nello Teer Quarry, Denfield Street
Durham, North Carolina**

PARAMETER	2/13/03	3/21/03	5/20/03	7/24/03	11/4/03	1/14/04	2L LIMITS
Chloroethane	<1.0	<1.0	<1.0	2.6	NA ^a	54.0	2,800
1,1-Dichloroethane	46.0	21.0	42.0	54.0	NA	42.0	700
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.38
1,1-Dichloroethene	49.0 ^b	16.0	21.0	2.9	NA	3.7	7.0
cis-1,2-Dichloroethene	17.0	6.4	15.0	1.5	NA	1.9	70
trans-1,2-Dichloroethene	49.0	<1.0	<1.0	<1.0	NA	<1.0	70
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.70
1,1,1-Trichloroethane	77.0	23.0	15.0	5.7	NA	7.1	200.00
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	1.00
Trichloroethene	16.0	7.2	1.9	<1.0	NA	1.9	2.80
Vinyl chloride	7.6	2.7	7.7	22.0	NA	29.0	0.015
Total CVOCs	261.6	76.3	102.6	88.7	NA	139.6	--
Methane	<1,000	<1,000	<1,000	<1,000	NA	1,200	NS ^c
Chloride	70,000	34,000	90,000	40,000	NA	22,000	250,000
Ethane	<1,000	<1,000	<1,000	<1,000	NA	<100	NS
Ethene	<1,000	<1,000	<1,000	<1,000	NA	<100	NS
Acetic Acid	<3,400	<3,400	40,000	42,000	19,000	<10	NS
Butyric Acid	<6,000	<12,000	<12,000	<12,000	<25,000	<25	NS
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10	NS
Propionic Acid	<6,100	<6,100	79,000	<6,100	<10,000	<10	NS
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10	NS
Ferrous Iron	67	700	3,700	6,000	NA	8,400	NS

All Values in µg/L.

^a NA Indicates Not Analyzed due to Shipper Error.

^b Bold Text Indicates Concentration in Excess of State Standard.

^c NS Indicates No Standard.

Table 15. HRC Pilot Study Analytical Data Summary
Nello Teer Quarry, Denfield St.
Durham, North Carolina

MW-18	Base Line	Post Injection Sampling Events					2L Standards
		2/13/03	3/21/03	5/20/03	7/24/03	11/4/03	
Methane	2,300	<1,000	3,800	2,400	NA ¹	3,300	
Chloride	4,500	3,900	4,100	3,000	NA	3,200	250,000
Nitrate	<100	<100	<100	<100	NA	<100	10,000
Sulfate	15,000	13,000	24,000	<5,000	NA	<5,000	250,000
Alkalinity	310,000	210,000	220,000	360,000	NA	470,000	
Free Carbon Dioxide	96,000	85,000	110,000	180,000	NA	240,000	
Ethane	<1,000	<1,000	<1,000	<1,000	NA	<100	
Ethene	<1,000	<1,000	<1,000	<1,000	NA	<100	
Ferrous Iron	8,400	2,200	1,400	5,100	NA	12,000	
Sulfide	72	<50	<50	<50	NA	<50	
TOC	8,900	8,000	11,000	7,800	NA	7,100	
Iron, Dissolved	5,400	2,600	1,700	1,900	NA	7,500	
Manganese, Dissolved	3,700	1,700	680	1,400	NA	4,000	
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.56
Bromoform	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.19
Bromomethane	1.1	<1.0	<1.0	<1.0	NA	<1.0	
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.3
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	50
Chlorodibromomethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	
Chloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	
2-Chloroethyl vinyl ether	<50.0	<50.0	<50.0	<50.0	NA	<50.0	2,800
Chloroform	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.19
Chloromethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	2.6
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	1,400
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	700
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.38
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	7
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	70
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	70
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.56
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.19
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.19
Methylene chloride	<5.0	<5.0	<5.0	<5.0	NA	<5.0	5
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.7
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	200
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	
Trichloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0	2.8
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0	2,100
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	NA	<1.0	0.015
Total VOCs	1.1	0	0	0		0	
Acetic Acid	<3,400	<3,400	<3,400	<3,400	<10,000	<10,000	
Butyric Acid	<6,000	<12,000	<12,000	<12,000	<25,000	<25,000	
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10,000	
Propionic Acid	<6,100	<6,100	<6,100	<6,100	<10,000	<10,000	
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10,000	

Screen Interval 3-10

All results in ug/l.

NA¹ - Not Analyzed-Cooler lost during shipping.

Quantum Project No. 0013-94-012

**Table 15, cont. HRC Pilot Study Analytical Data Summary
Nello Teer Quarry, Denfield St.
Durham, North Carolina**

MW-29i	Base Line	Post Injection Sampling Events					2L Standards
		2/13/2003	3/21/2003	5/20/03	7/24/03	11/4/03	
Methane	<1,000	<1,000	1,300	3,000	3,900	1,700	
Chloride	4,400	16,000	13,000	16,000	7,800	6,000	250000
Nitrate	<100	410	190	320	<100	<100	10000
Sulfate	24,000	9,000	<5,000	<5,000	<5,000	6,600	250000
Alkalinity	190,000	380,000	520,000	680,000	500,000	460,000	
Free Carbon Dioxide	23,000	240,000	310,000	570,000	260,000	140,000	
Ethane	<1,000	<100	<1,000	<1,000	<100	<100	
Ethene	<1,000	<100	<1,000	<1,000	<100	<100	
Ferrous Iron	2,400	1,800	6,300	12,000	11,000	12,000	
Sulfide	71	<50	<50	<50	<50	59	
TOC	5,700	420,000	170,000	180,000	26,000	15,000	
Iron, Dissolved	<50	950	4,700	8,700	340	1,300	
Manganese, Dissolved	1,600	7,700	8,800	13,000	8,900	7,800	
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.56
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.3
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	50
Chlorodibromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Chloroethane	<1.0	<1.0	<1.0	3.9	20.0	9.9	2800
2-Chloroethyl vinyl ether	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
Chloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1400
1,1-Dichloroethane	6.1	9.7	13.0	50.0	70.0	66.0	700
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.38
1,1-Dichloroethene	12.0	<1.0	18.0	10.0	6.4	6.7	7
cis-1,2-Dichloroethene	5.0	4.2	10.0	4.1	3.2	3.5	70
trans-1,2-Dichloroethene	12.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.56
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.7
1,1,1-Trichloroethane	3.2	3.2	3.4	6.2	<1.0	21.0	200
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Trichloroethene	4.4	5.7	2.3	2.4	2.1	2.2	2.8
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2100
Vinyl chloride	2.0	1.4	2.5	41.0	39.0	41.0	0.015
Total VOCs	44.7	24.2	49.2	117.6	140.7	150.3	
Acetic Acid	<3,400	<3,400	<3,400	97,000	23,000	<10,000	
Butyric Acid	<6,000	23000	<12,000	110,000	<25,000	<25,000	
Lactic Acid	<3,200	<1,200	<1,200	120,000	<10,000	<10,000	
Propionic Acid	<6,100	130,000	<6,100	87,000	<10,000	<10,000	
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10,000	

Screen Interval 18-33

Quantum Project No. 0013-94-012

**Table 15, cont. HRC Pilot Study Analytical Data Summary
Nello Teer Quarry, Denfield St.
Durham, North Carolina**

MW-29	Base Line	Post Injection Sampling Events					2L Standards
		2/13/2003	3/21/2003	5/20/03	7/24/03	11/4/03	
Methane	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000
Chloride	2,500	2,900	2,600	<1000	1,400	<1,000	250000
Nitrate	<100	270	<100	<100	<100	<100	10000
Sulfate	22,000	12,000	10,000	<5,000	27,000	12,000	250000
Alkalinity	120,000	250,000	280,000	260,000	250,000	180,000	
Free Carbon Dioxide	15,000	31,000	39,000	24,000	50,000	18,000	
Ethane	<1,000	<1,000	<1,000	<1,000	<100	<100	
Ethene	<1,000	<1,000	<1,000	<1,000	<100	<100	
Ferrous Iron	260	230	570	2,800	1,100	560	
Sulfide	42	<50	77	<50	<50	<50	
TOC	5,900	260,000	8,600	7,100	6,600	4,300	
Iron, Dissolved	<50	<50	110	190	<50	<50	
Manganese, Dissolved	13	320	1,300	690	310	110	
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.56
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	3.0	0.3
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	50
Chlorodibromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Chloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2800
2-Chloroethyl vinyl ether	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
Chloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1400
1,1-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	700
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.38
1,1-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	7
cis-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
trans-1,2-Dichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.56
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.7
1,1,1-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	200
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Trichloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.8
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2100
Vinyl chloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.015
Total VOCs	0	0	0	0	0	3.0	
Acetic Acid	<3,400	<3,400	<3,400	<3,400	<10,000	<10,000	
Butyric Acid	<6,000	<12,000	<12,000	<12,000	<25,000	<25,000	
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10,000	
Propionic Acid	<6,100	<6,100	<6,100	<6,100	<10,000	<10,000	
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10,000	

Screen Interval 4-14

Quantum Project No. 0013-94-012

**Table 15, cont. HRC Pilot Study Analytical Data Summary
Nello Teer Quarry, Denfield St.
Durham, North Carolina**

MW-25	Base Line	Post Injection Sampling Events					2L Standards
		2/13/2003	3/21/2003	5/20/03	7/24/03	11/4/03	
Methane	<1,000	<1,000	1,700	1,400	1,600	1,500	
Chloride	11,000	20,000	20,000	53,000	42,000	14,000	250000
Nitrate	<100	<100	<100	<100	<100	<100	10000
Sulfate	26,000	<5,000	<5,000	<5,000	<5,000	<5,000	250000
Alkalinity	260,000	330,000	720,000	880,000	610,000	50,000	
Free Carbon Dioxide	49,000	75,000	320,000	410,000	220,000	160,000	
Ethane	<1,000	<1,000	<1,000	<1,000	<100	<100	
Ethene	<1,000	<1,000	<1,000	<1,000	<100	<100	
Ferrous Iron	86	4,800	9,100	20,000	14,000	15,000	
Sulfide	<20	<50	<50	<50	<50	<50	
TOC	6,400	80,000	140,000	130,000	25,000	11,000	
Iron, Dissolved	<50	<50	5,300	9,400	<50	650	
Manganese, Dissolved	1,400	12,000	14,000	18,000	13,000	9,500	
Bromodichloromethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	0.56
Bromoform	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	0.19
Bromomethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	
Carbon Tetrachloride	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	0.3
Chlorobenzene	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	50
Chlorodibromomethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	
Chloroethane	15.0	<1.0	<1.0	10.0	120.0	68.0	2800
2-Chloroethyl vinyl ether	<250.0	<50.0	<50.0	<250.0	<50.0	<50.0	
Chloroform	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	0.19
Chloromethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	2.6
1,2-Dibromoethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	
1,2-Dichlorobenzene	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	
1,3-Dichlorobenzene	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	
1,4-Dichlorobenzene	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	
Dichlorodifluoromethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	1400
1,1-Dichloroethane	150.0	28.0	110.0	170.0	64.0	48.0	700
1,2-Dichloroethane	<5.0	<1.0	<1.0	<5.0	1.4	<1.0	0.38
1,1-Dichloroethene	110.0	27.0	52.0	6.4	1.9	4.1	7
cis-1,2-Dichloroethene	51.0	8.7	34.0	<5.0	<1.0	2.0	70
trans-1,2-Dichloroethene	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	70
1,2-Dichloropropane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	0.56
cis-1,3-Dichloropropene	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	0.19
trans-1,3-Dichloropropene	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	0.19
Methylene chloride	<25.0	<5.0	<5.0	<25.0	<5.0	<5.0	5.0
1,1,2,2-Tetrachloroethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	
Tetrachloroethene	7.7	<1.0	<1.0	<5.0	<1.0	<1.0	0.7
1,1,1-Trichloroethane	240.0	31.0	29.0	15.0	<1.0	7.2	200
1,1,2-Trichloroethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	
Trichloroethene	40.0	9.1	2.4	<5.0	1.6	1.5	2.8
Trichlorofluoromethane	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	2100
Vinyl chloride	16.0	3.7	16.0	82.0	14.0	34.0	0.015
Total VOCs	629.7	107.5	243.4	283.4	202.9	164.8	
Acetic Acid	<3,400	<3,400	72,000	170,000	40,000	<10,000	
Butyric Acid	<6,000	<12,000	22,000	<12,000	<25,000	<25,000	
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10,000	
Propionic Acid	<6,100	<6,100	140,000	100,000	<10,000	<10,000	
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10,000	

Screen Interval 4-14

Quantum Project No. 0013-94-012

Table 15, cont. HRC Pilot Study Analytical Data Summary
Nello Teer Quarry, Denfield St.
Durham, North Carolina

MW-25i	Base Line	Post Injection Sampling Events					2L Standards
		2/13/2003	3/21/2003	5/20/03	7/24/03	11/4/03	
Methane	<1,000	<1,000	1,500	<1,000	1,200	1,400	
Chloride	16,000	13,000	26,000	20,000	15,000	13,000	250000
Nitrate	<100	<100	<100	<100	<100	<100	10000
Sulfate	26,000	<5,000	<5,000	<5,000	5,400	8,200	250000
Alkalinity	270,000	340,000	650,000	670,000	530,000	450,000	
Free Carbon Dioxide	41,000	70,000	280,000	280,000	130,000	110,000	
Ethane	<1,000	<1,000	<1,000	<1,000	<100	<100	
Ethene	<1,000	<1,000	<1,000	<1,000	<100	<100	
Ferrous Iron	6,200	1,100	700	590	1,600	980	
Sulfide	23	<50	<50	<50	<50	<50	
TOC	7,100	92,000	87,000	48,000	13,000	12,000	
Iron, Dissolved	<50	<50	65	<50	<50	<50	
Manganese, Dissolved	2,700	6,100	9,400	12,000	9,600	7,200	
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.56
Bromoform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
Bromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.3
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	50
Chlorodibromomethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Chloroethane	<1.0	<1.0	<1.0	12.0	110.0	130	2800
2-Chloroethyl vinyl ether	<50.0	<50.0	<50.0	<50.0	<50.0	<50.0	
Chloroform	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
Chloromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2.6
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1400
1,1-Dichloroethane	74.0	28.0	120.0	170.0	39.0	70.0	700
1,2-Dichloroethane	1.0	<1.0	<1.0	<1.0	1.4	<1.0	0.38
1,1-Dichloroethene	93.0	35.0	50.0	3.9	1.7	3.8	7
cis-1,2-Dichloroethene	31.0	14.0	30.0	1.2	<1.0	2.1	70
trans-1,2-Dichloroethene	93.0	<1.0	<1.0	<1.0	<1.0	<1.0	70
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.56
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.19
Methylene chloride	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	5
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.7
1,1,1-Trichloroethane	130.0	27.0	30.0	10.0	<1.0	8.1	200
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Trichloroethene	28.0	9.1	<1.0	<1.0	1.1	2.0	2.8
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	2100
Vinyl chloride	11.0	3.6	31.0	89.0	13.0	72.0	0.015
Total VOCs	461.0	116.7	261.0	286.1	166.2	288.0	
Acetic Acid	<3,400	<3,400	54,000	66,000	<10,000	<10,000	
Butyric Acid	<6,000	<12,000	<12,000	36,000	<25,000	<25,000	
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10,000	
Propionic Acid	<6,100	<6,100	100,000	34,000	<10,000	<10,000	
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10,000	

Screen interval 18-33

Quantum Project No. 0013-94-012

**Table 15, cont. HRC Pilot Study Analytical Data Summary
Nello Teer Quarry, Denfield St.
Durham, North Carolina**

RW-5	Base Line	Post Injection Sampling Events				2L Standards
		2/13/2003	3/21/2003	5/20/03	7/24/03	
Methane	<1,000	<1,000	<1,000	<1,000	NA ¹	1,200
Chloride	70,000	34,000	90,000	40,000	NA	22,000
Nitrate	<100	<100	<100	<100	NA	<100
Sulfate	31,000	7,200	<5,000	<5,000	NA	12,000
Alkalinity	240,000	370,000	100,000	520,000	NA	440,000
Free Carbon Dioxide	29,000	39,000	120,000	160,000	NA	70,000
Ethane	<1,000	<1,000	<1,000	<1,000	NA	<100
Ethene	<1,000	<1,000	<1,000	<1,000	NA	<100
Ferrous Iron	67	700	3,700	6,000	NA	8,400
Sulfide	<20	<50	<50	<50	NA	<50
TOC	5,800	49,000	77,000	32,000	NA	5,800
Iron, Dissolved	<50	<50	1,100	300	NA	360
Manganese, Dissolved	1,200	14,000	12,000	12,000	NA	7,800
Bromodichloromethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Bromoform	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Bromomethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Carbon Tetrachloride	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Chlorobenzene	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Chlorodibromomethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Chloroethane	<1.0	<1.0	<1.0	2.6	NA	54.0
2-Chloroethyl vinyl ether	<50.0	<50.0	<50.0	<50.0	NA	<50.0
Chloroform	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Chloromethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
1,2-Dibromoethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
1,2-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	NA	<1.0
1,3-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	NA	<1.0
1,4-Dichlorobenzene	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Dichlorodifluoromethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
1,1-Dichloroethane	46.0	21.0	42.0	54.0	NA	42.0
1,2-Dichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
1,1-Dichloroethene	49.0	16.0	21.0	2.9	NA	3.7
cis-1,2-Dichloroethene	17.0	6.4	15.0	1.5	NA	1.9
trans-1,2-Dichloroethene	49.0	<1.0	<1.0	<1.0	NA	<1.0
1,2-Dichloropropane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
cis-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	NA	<1.0
trans-1,3-Dichloropropene	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Methylene chloride	<5.0	<5.0	<5.0	<5.0	NA	<5.0
1,1,2,2-Tetrachloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Tetrachloroethene	<1.0	<1.0	<1.0	<1.0	NA	<1.0
1,1,1-Trichloroethane	77.0	23.0	15.0	5.7	NA	7.1
1,1,2-Trichloroethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Trichloroethene	16.0	7.2	1.9	<1	NA	1.9
Trichlorofluoromethane	<1.0	<1.0	<1.0	<1.0	NA	<1.0
Vinyl chloride	7.6	2.7	7.7	22.0	NA	29.0
Total VOCs	261.6	76.3	102.6	88.7		139.6
Acetic Acid	<3,400	<3,400	40,000	42,000	19,000	<10,000
Butyric Acid	<6,000	<12,000	<12,000	<12,000	<25,000	<25,000
Lactic Acid	<3,200	<1,200	<1,200	<1,200	<10,000	<10,000
Propionic Acid	<6,100	<6,100	79,000	<6,100	<10,000	<10,000
Pyruvic Acid	<840	<440	<440	<440	<10,000	<10,000

Screen Interval 5-35

NA¹ Not Analyzed-Cooler lost during shipping.

Appendix A

Appendix A

February 2003

**Laboratory Analytical Results
and
Chain of Custody**



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 14, 2003

Date Received : February 14, 2003
Description : Teer - HRC

ESC Sample # : L104426-01

Sample ID : MW-25

Site ID :

Collected By : Tom Davis
Collection Date : 02/13/03 13:00

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		02/24/03	1
Butyric Acid	BDL	6.0	mg/l		03/11/03	1
Lactic Acid	BDL	3.2	mg/l		03/11/03	1
Propionic Acid	BDL	6.1	mg/l		02/24/03	1
Pyruvic Acid	BDL	0.84	mg/l		03/11/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

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L104426-01 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

Cheli Boucher
Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 14, 2003

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : MW-18
Collected By : Tom Davis
Collection Date : 02/13/03 13:30

ESC Sample # : L104426-02

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		02/24/03	1
Butyric Acid	BDL	6.0	mg/l		03/11/03	1
Lactic Acid	BDL	3.2	mg/l		03/11/03	1
Propionic Acid	BDL	6.1	mg/l		02/24/03	1
Pyruvic Acid	BDL	0.84	mg/l		03/11/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L104426-02 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc. Subcontracted to Data Analysis

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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 14, 2003

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : MW-29
Collected By : Tom Davis
Collection Date : 02/13/03 14:30

ESC Sample # : L104426-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		02/24/03	1
Butyric Acid	BDL	6.0	mg/l		03/11/03	1
Lactic Acid	BDL	3.2	mg/l		03/11/03	1
Propionic Acid	BDL	6.1	mg/l		02/24/03	1
Pyruvic Acid	BDL	0.84	mg/l		03/11/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 14, 2003

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : MW-29I
Collected By : Tom Davis
Collection Date : 02/13/03 15:00

ESC Sample # : L104426-04

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		02/24/03	1
Butyric Acid	BDL	6.0	mg/l		03/11/03	1
Lactic Acid	BDL	3.2	mg/l		03/11/03	1
Propionic Acid	BDL	6.1	mg/l		02/24/03	1
Pyruvic Acid	BDL	0.84	mg/l		03/11/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L104426-04 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 14, 2003

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : MW-25I
Collected By : Tom Davis
Collection Date : 02/13/03 15:30

ESC Sample # : L104426-05

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		02/24/03	1
Butyric Acid	BDL	6.0	mg/l		03/11/03	1
Lactic Acid	BDL	3.2	mg/l		03/11/03	1
Propionic Acid	BDL	6.1	mg/l		02/24/03	1
Pyruvic Acid	BDL	0.84	mg/l		03/11/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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March 14, 2003

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 02/13/03 16:00

ESC Sample # : L104426-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		02/24/03	1
Butyric Acid	BDL	6.0	mg/l		03/11/03	1
Lactic Acid	BDL	3.2	mg/l		03/11/03	1
Propionic Acid	BDL	6.1	mg/l		02/24/03	1
Pyruvic Acid	BDL	0.84	mg/l		03/11/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC

Sample ID : MW-25

Collected By : Tom Davis
Collection Date : 02/13/03 13:00

ESC Sample # : L104423-01

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	02/18/03	1
Chloride	11000	1000	ug/l	9056	02/14/03	1
Nitrate	BDL	100	ug/l	9056	02/14/03	1
Sulfate	26000	5000	ug/l	9056	02/14/03	1
Alkalinity	260000	10000	ug/l	310.2	02/17/03	1
Free Carbon Dioxide	49000	10000	ug/l	406B	02/17/03	1
Ethane	BDL	1000	ug/l	8015M	02/18/03	1
Ethene	BDL	1000	ug/l	8015M	02/18/03	1
Ferrous Iron	86.	50.	ug/l	3500Fe	02/14/03	1
Sulfide	BDL	20.	ug/l	9030B	02/17/03	1
TOC (Total Organic Carbon)	6400	1000	ug/l	9060	02/15/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	02/15/03	1
Manganese, Dissolved	1400	10.	ug/l	6010B	02/15/03	1
Volatile Organics						
Bromodichloromethane	BDL	5.0	ug/l	601MS	02/20/03	5
Bromoform	BDL	5.0	ug/l	601MS	02/20/03	5
Bromomethane	BDL	5.0	ug/l	601MS	02/20/03	5
Carbon Tetrachloride	BDL	5.0	ug/l	601MS	02/20/03	5
Chlorobenzene	BDL	5.0	ug/l	601MS	02/20/03	5
Chlorodibromomethane	BDL	5.0	ug/l	601MS	02/20/03	5
Chloroethane	15.	5.0	ug/l	601MS	02/20/03	5
2-Chloroethyl vinyl ether	BDL	250	ug/l	601MS	02/20/03	5
Chloroform	BDL	5.0	ug/l	601MS	02/20/03	5
Chloromethane	BDL	5.0	ug/l	601MS	02/20/03	5
1,2-Dibromoethane	BDL	5.0	ug/l	601MS	02/20/03	5
1,2-Dichlorobenzene	BDL	5.0	ug/l	601MS	02/20/03	5
1,3-Dichlorobenzene	BDL	5.0	ug/l	601MS	02/20/03	5
1,4-Dichlorobenzene	BDL	5.0	ug/l	601MS	02/20/03	5
Dichlorodifluoromethane	BDL	5.0	ug/l	601MS	02/20/03	5

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108.
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC

ESC Sample # : L104423-01

Sample ID : MW-25

Site ID :

Collected By : Tom Davis
Collection Date : 02/13/03 13:00

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	150	5.0	ug/l	601MS	02/20/03	5
1,2-Dichloroethane	BDL	5.0	ug/l	601MS	02/20/03	5
1,1-Dichloroethene	110	5.0	ug/l	601MS	02/20/03	5
cis-1,2-Dichloroethene	51.	5.0	ug/l	601MS	02/20/03	5
trans-1,2-Dichloroethene	BDL	5.0	ug/l	601MS	02/20/03	5
1,2-Dichloropropane	BDL	5.0	ug/l	601MS	02/20/03	5
cis-1,3-Dichloropropene	BDL	5.0	ug/l	601MS	02/20/03	5
trans-1,3-Dichloropropene	BDL	5.0	ug/l	601MS	02/20/03	5
Methylene chloride	BDL	25.	ug/l	601MS	02/20/03	5
1,1,2,2-Tetrachloroethane	BDL	5.0	ug/l	601MS	02/20/03	5
Tetrachloroethene	7.7	5.0	ug/l	601MS	02/20/03	5
1,1,1-Trichloroethane	240	5.0	ug/l	601MS	02/20/03	5
1,1,2-Trichloroethane	BDL	5.0	ug/l	601MS	02/20/03	5
Trichloroethene	40.	5.0	ug/l	601MS	02/20/03	5
Trichlorofluoromethane	BDL	5.0	ug/l	601MS	02/20/03	5
Vinyl chloride	16.	5.0	ug/l	601MS	02/20/03	5



Chely Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Reported: 09/08/03 11:28 Printed: 03/01/04 13:19



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : MW-18
Collected By : Tom Davis
Collection Date : 02/13/03 13:30

ESC Sample # : L104423-02
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	2300	1000	ug/l	8015M	02/18/03	1
Chloride	4500	1000	ug/l	9056	02/14/03	1
Nitrate	BDL	100	ug/l	9056	02/14/03	1
Sulfate	15000	5000	ug/l	9056	02/14/03	1
Alkalinity	310000	20000	ug/l	310.2	02/17/03	2
Free Carbon Dioxide	96000	10000	ug/l	406B	02/17/03	1
Ethane	BDL	1000	ug/l	8015M	02/18/03	1
Ethene	BDL	1000	ug/l	8015M	02/18/03	1
Ferrous Iron	8400	250	ug/l	3500Fe	02/14/03	5
Sulfide	72.	20.	ug/l	9030B	02/17/03	1
TOC (Total Organic Carbon)	8900	1000	ug/l	9060	02/15/03	1
Iron, Dissolved	5400	50.	ug/l	6010B	02/15/03	1
Manganese, Dissolved	3700	10.	ug/l	6010B	02/15/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Bromoform	BDL	1.0	ug/l	601MS	02/18/03	1
Bromomethane	1.1	1.0	ug/l	601MS	02/18/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	02/18/03	1
Chloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	02/18/03	1
Chloroform	BDL	1.0	ug/l	601MS	02/18/03	1
Chloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

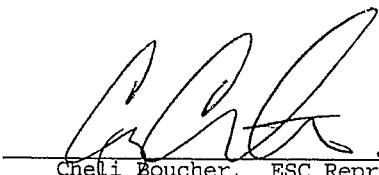
Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : MW-18
Collected By : Tom Davis
Collection Date : 02/13/03 13:30

ESC Sample # : L104423-02
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	02/18/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	02/18/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Vinyl chloride	BDL	1.0	ug/l	601MS	02/18/03	1



Chelli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC

ESC Sample # : L104423-03

Sample ID : MW-29

Site ID :

Collected By : Tom Davis
Collection Date : 02/13/03 14:30

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	02/19/03	1
Chloride	2500	1000	ug/l	9056	02/14/03	1
Nitrate	BDL	100	ug/l	9056	02/14/03	1
Sulfate	22000	5000	ug/l	9056	02/14/03	1
Alkalinity	120000	10000	ug/l	310.2	02/17/03	1
Free Carbon Dioxide	15000	10000	ug/l	406B	02/17/03	1
Ethane	BDL	1000	ug/l	8015M	02/19/03	1
Ethene	BDL	1000	ug/l	8015M	02/19/03	1
Ferrous Iron	260	50.	ug/l	3500Fe	02/14/03	1
Sulfide	42.	20.	ug/l	9030B	02/17/03	1
TOC (Total Organic Carbon)	5900	1000	ug/l	9060	02/15/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	02/15/03	1
Manganese, Dissolved	13.	10.	ug/l	6010B	02/15/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Bromoform	BDL	1.0	ug/l	601MS	02/18/03	1
Bromomethane	BDL	1.0	ug/l	601MS	02/18/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	02/18/03	1
Chloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	02/18/03	1
Chloroform	BDL	1.0	ug/l	601MS	02/18/03	1
Chloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC

ESC Sample # : L104423-03

Sample ID : MW-29

Site ID :

Collected By : Tom Davis
Collection Date : 02/13/03 14:30

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	02/18/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	02/18/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Vinyl chloride	BDL	1.0	ug/l	601MS	02/18/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : MW-29I
Collected By : Tom Davis
Collection Date : 02/13/03 15:00

ESC Sample # : L104423-04

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	02/18/03	1
Chloride	4400	1000	ug/l	9056	02/14/03	1
Nitrate	BDL	100	ug/l	9056	02/14/03	1
Sulfate	24000	5000	ug/l	9056	02/14/03	1
Alkalinity	190000	10000	ug/l	310.2	02/17/03	1
Free Carbon Dioxide	23000	10000	ug/l	406B	02/17/03	1
Ethane	BDL	1000	ug/l	8015M	02/18/03	1
Ethene	BDL	1000	ug/l	8015M	02/18/03	1
Ferrous Iron	2400	100	ug/l	3500Fe	02/14/03	2
Sulfide	71.	20.	ug/l	9030B	02/17/03	1
TOC (Total Organic Carbon)	5700	1000	ug/l	9060	02/15/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	02/15/03	1
Manganese, Dissolved	1600	10.	ug/l	6010B	02/15/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Bromoform	BDL	1.0	ug/l	601MS	02/18/03	1
Bromomethane	BDL	1.0	ug/l	601MS	02/18/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	02/18/03	1
Chloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	02/18/03	1
Chloroform	BDL	1.0	ug/l	601MS	02/18/03	1
Chloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC

ESC Sample # : L104423-04

Sample ID : MW-29I

Site ID :

Collected By : Tom Davis
Collection Date : 02/13/03 15:00

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	6.1	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,1-Dichloroethene	12.	1.0	ug/l	601MS	02/18/03	1
cis-1,2-Dichloroethene	5.0	1.0	ug/l	601MS	02/18/03	1
trans-1,2-Dichloroethene	12.	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	02/18/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	02/18/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
1,1,1-Trichloroethane	3.2	1.0	ug/l	601MS	02/18/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Trichloroethene	4.4	1.0	ug/l	601MS	02/18/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Vinyl chloride	2.0	1.0	ug/l	601MS	02/18/03	1

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : MW-25I
Collected By : Tom Davis
Collection Date : 02/13/03 15:30

ESC Sample # : L104423-05
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	02/18/03	1
Chloride	16000	1000	ug/l	9056	02/14/03	1
Nitrate	BDL	100	ug/l	9056	02/14/03	1
Sulfate	26000	5000	ug/l	9056	02/14/03	1
Alkalinity	270000	10000	ug/l	310.2	02/17/03	1
Free Carbon Dioxide	41000	10000	ug/l	406B	02/17/03	1
Ethane	BDL	1000	ug/l	8015M	02/18/03	1
Ethene	BDL	1000	ug/l	8015M	02/18/03	1
Ferrous Iron	6200	250	ug/l	3500Fe	02/14/03	5
Sulfide	23.	20.	ug/l	9030B	02/17/03	1
TOC (Total Organic Carbon)	7100	1000	ug/l	9060	02/15/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	02/15/03	1
Manganese, Dissolved	2700	10.	ug/l	6010B	02/15/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Bromoform	BDL	1.0	ug/l	601MS	02/18/03	1
Bromomethane	BDL	1.0	ug/l	601MS	02/18/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	02/18/03	1
Chloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	02/18/03	1
Chloroform	BDL	1.0	ug/l	601MS	02/18/03	1
Chloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC

ESC Sample # : L104423-05

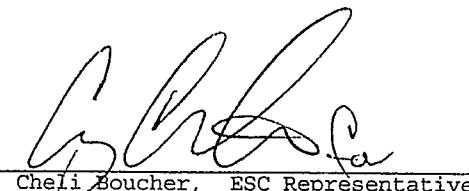
Sample ID : MW-25I

Site ID :

Collected By : Tom Davis
Collection Date : 02/13/03 15:30

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	74.	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloroethane	1.0	1.0	ug/l	601MS	02/18/03	1
1,1-Dichloroethene	93.	1.0	ug/l	601MS	02/18/03	1
cis-1,2-Dichloroethene	31.	1.0	ug/l	601MS	02/18/03	1
trans-1,2-Dichloroethene	93.	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	02/18/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	02/18/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
1,1,1-Trichloroethane	130	1.0	ug/l	601MS	02/18/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Trichloroethene	28.	1.0	ug/l	601MS	02/18/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Vinyl chloride	11.	1.0	ug/l	601MS	02/18/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Note:

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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 02/13/03 16:00

ESC Sample # : L104423-06
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	02/19/03	1
Chloride	70000	1000	ug/l	9056	02/14/03	1
Nitrate	BDL	100	ug/l	9056	02/14/03	1
Sulfate	31000	5000	ug/l	9056	02/14/03	1
Alkalinity	240000	10000	ug/l	310.2	02/17/03	1
Free Carbon Dioxide	29000	10000	ug/l	406B	02/17/03	1
Ethane	BDL	1000	ug/l	8015M	02/19/03	1
Ethene	BDL	1000	ug/l	8015M	02/19/03	1
Ferrous Iron	67.	50.	ug/l	3500Fe	02/14/03	1
Sulfide	BDL	20.	ug/l	9030B	02/17/03	1
TOC (Total Organic Carbon)	5800	1000	ug/l	9060	02/15/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	02/15/03	1
Manganese, Dissolved	1200	10.	ug/l	6010B	02/15/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Bromoform	BDL	1.0	ug/l	601MS	02/18/03	1
Bromomethane	BDL	1.0	ug/l	601MS	02/18/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	02/18/03	1
Chloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	02/18/03	1
Chloroform	BDL	1.0	ug/l	601MS	02/18/03	1
Chloromethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	02/18/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

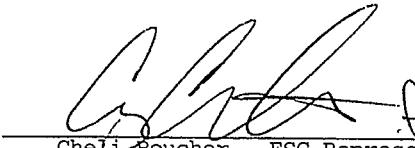
Date Received : February 14, 2003
Description : Teer - HRC
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 02/13/03 16:00

ESC Sample # : L104423-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	46.	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
1,1-Dichloroethene	49.	1.0	ug/l	601MS	02/18/03	1
cis-1,2-Dichloroethene	17.	1.0	ug/l	601MS	02/18/03	1
trans-1,2-Dichloroethene	49.	1.0	ug/l	601MS	02/18/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	02/18/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	02/18/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	02/18/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	02/18/03	1
1,1,1-Trichloroethane	77.	1.0	ug/l	601MS	02/18/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	02/18/03	1
Trichloroethene	16.	1.0	ug/l	601MS	02/18/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	02/18/03	1
Vinyl chloride	7.6	1.0	ug/l	601MS	02/18/03	1



CheLi Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197; FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 09/08/03 11:28 Printed: 03/01/04 13:19

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L104423-01	Ferrous Iron	T8
	Chloroethane	J4
	Methylene chloride	J4
L104423-02	Ferrous Iron	T8
	Chloroethane	J4
	2-Chloroethyl vinyl ether	J4
L104423-03	Ferrous Iron	T8
	Chloroethane	J4
	2-Chloroethyl vinyl ether	J4
L104423-04	Ferrous Iron	T8
	Chloroethane	J4
	2-Chloroethyl vinyl ether	J4
L104423-05	Ferrous Iron	T8
	Chloroethane	J4
	2-Chloroethyl vinyl ether	J4
L104423-06	Ferrous Iron	T8
	Chloroethane	J4
	2-Chloroethyl vinyl ether	J4

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J4	The associated batch QC was outside the established quality control range for accuracy.
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

Control Limits

2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	79-126	83-119
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	81-114	82-116
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	65-129	72-126

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
03/01/04 at 13:19:42

TSR Signing Reports: 070
R5 - Desired TAT

Sample: L104423-01 Account: QUANTUM Received: 02/14/03 09:15 Due Date: 02/21/03 00:00 RPT Date: 09/08/03 11:28

Sample: L104423-02 Account: QUANTUM Received: 02/14/03 09:15 Due Date: 02/21/03 00:00 RPT Date: 09/08/03 11:28

Sample: L104423-03 Account: QUANTUM Received: 02/14/03 09:15 Due Date: 02/21/03 00:00 RPT Date: 09/08/03 11:28

Sample: L104423-04 Account: QUANTUM Received: 02/14/03 09:15 Due Date: 02/21/03 00:00 RPT Date: 09/08/03 11:28

Sample: L104423-05 Account: QUANTUM Received: 02/14/03 09:15 Due Date: 02/21/03 00:00 RPT Date: 09/08/03 11:28

Sample: L104423-06 Account: QUANTUM Received: 02/14/03 09:15 Due Date: 02/21/03 00:00 RPT Date: 09/08/03 11:28

Low sample volume for Methane, Ethane, Ethene

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Raleigh, NC 27607

Quality Assurance Report

Level II

L104423

March 01, 2004

Analyte	Result	Laboratory Blank Units	Date Analyzed	Batch
Chloride	< .01	mg/l	02/14/03 14:21	WG100825
Nitrate	< .1	mg/l	02/14/03 14:21	WG100825
Sulfate	< 5	mg/l	02/14/03 14:21	WG100825
Iron, Dissolved	< .05	mg/l	02/15/03 15:01	WG100852
Manganese, Dissolved	< .01	mg/l	02/15/03 15:01	WG100852
TOC (Total Organic Carbon)	< 1	mg/l	02/15/03 07:00	WG100881
1,1,1-Trichloroethane	< .001	mg/l	02/18/03 00:20	WG101038
1,1,2-Tetrachloroethane	< .001	mg/l	02/18/03 00:20	WG101038
1,1,2-Trichloroethane	< .001	mg/l	02/18/03 00:20	WG101038
1,1-Dichloroethane	< .001	mg/l	02/18/03 00:20	WG101038
1,2-Dibromoethane	< .001	mg/l	02/18/03 00:20	WG101038
1,2-Dichlorobenzene	< .001	mg/l	02/18/03 00:20	WG101038
1,2-Dichloroethane	< .001	mg/l	02/18/03 00:20	WG101038
1,2-Dichloropropane	< .001	mg/l	02/18/03 00:20	WG101038
1,3-Dichlorobenzene	< .001	mg/l	02/18/03 00:20	WG101038
1,4-Dichlorobenzene	< .001	mg/l	02/18/03 00:20	WG101038
2-Chloroethyl vinyl ether	< .001	mg/l	02/18/03 00:20	WG101038
Bromodichloromethane	< .001	mg/l	02/18/03 00:20	WG101038
Bromoform	< .001	mg/l	02/18/03 00:20	WG101038
Bromomethane	< .001	mg/l	02/18/03 00:20	WG101038
Carbon Tetrachloride	< .001	mg/l	02/18/03 00:20	WG101038
Chlorobenzene	< .001	mg/l	02/18/03 00:20	WG101038
Chlorodibromomethane	< .001	mg/l	02/18/03 00:20	WG101038
Chloroethane	< .001	mg/l	02/18/03 00:20	WG101038
Chloroform	< .005	mg/l	02/18/03 00:20	WG101038
Chloromethane	< .001	mg/l	02/18/03 00:20	WG101038
cis-1,2-Dichloroethene	< .001	mg/l	02/18/03 00:20	WG101038
cis-1,3-Dichloropropene	< .001	mg/l	02/18/03 00:20	WG101038
Dichlorodifluoromethane	< .001	mg/l	02/18/03 00:20	WG101038
Methylene chloride	< 0.00535	mg/l	02/18/03 00:20	WG101038
Tetrachloroethene	< .001	mg/l	02/18/03 00:20	WG101038
trans-1,2-Dichloroethene	< .001	mg/l	02/18/03 00:20	WG101038
trans-1,3-Dichloropropene	< .001	mg/l	02/18/03 00:20	WG101038
Trichloroethene	< .001	mg/l	02/18/03 00:20	WG101038
Trichlorofluoromethane	< .001	mg/l	02/18/03 00:20	WG101038
Vinyl chloride	< .001	mg/l	02/18/03 00:20	WG101038
Alkalinity	< 10	mg/l	02/17/03 17:21	WG101058
1,1,1-Trichloroethane	< .001	mg/l	02/19/03 07:08	WG101312
1,1,2-Tetrachloroethane	< .001	mg/l	02/19/03 07:08	WG101312
1,2-Trichloroethane	< .001	mg/l	02/19/03 07:08	WG101312
1,1-Dichloroethane	< .001	mg/l	02/19/03 07:08	WG101312
1,1-Dichloroethene	< .001	mg/l	02/19/03 07:08	WG101312
1,2-Dibromoethane	< .001	mg/l	02/19/03 07:08	WG101312
1,2-Dichlorobenzene	< .001	mg/l	02/19/03 07:08	WG101312
1,2-Dichloroethane	< .001	mg/l	02/19/03 07:08	WG101312
1,2-Dichloropropane	< .001	mg/l	02/19/03 07:08	WG101312
1,3-Dichlorobenzene	< .001	mg/l	02/19/03 07:08	WG101312
1,4-Dichlorobenzene	< .001	mg/l	02/19/03 07:08	WG101312
2-Chloroethyl vinyl ether	< .001	mg/l	02/19/03 07:08	WG101312
Bromodichloromethane	< .001	mg/l	02/19/03 07:08	WG101312
Bromoform	< .001	mg/l	02/19/03 07:08	WG101312
Bromomethane	< .001	mg/l	02/19/03 07:08	WG101312
Carbon Tetrachloride	< .001	mg/l	02/19/03 07:08	WG101312
Chlorobenzene	< .001	mg/l	02/19/03 07:08	WG101312

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Quality Assurance Report

Level II

L104423

March 01, 2004

Chlorodibromomethane <.001 mg/l 02/19/03 07:08 WG101312

Analyte	Result	Laboratory Blank	Units	Date Analyzed	Batch
Chloroethane	<.001		mg/l	02/19/03 07:08	WG101312
Chloroform	<.005		mg/l	02/19/03 07:08	WG101312
Chloromethane	<.001		mg/l	02/19/03 07:08	WG101312
cis-1,2-Dichloroethene	<.001		mg/l	02/19/03 07:08	WG101312
cis-1,3-Dichloropropene	<.001		mg/l	02/19/03 07:08	WG101312
Dichlorodifluoromethane	<.001		mg/l	02/19/03 07:08	WG101312
Ethylene chloride	<.0011		mg/l	02/19/03 07:08	WG101312
Tetrachloroethene	<.001		mg/l	02/19/03 07:08	WG101312
trans-1,2-Dichloroethene	<.001		mg/l	02/19/03 07:08	WG101312
trans-1,3-Dichloropropene	<.001		mg/l	02/19/03 07:08	WG101312
Trichloroethene	<.001		mg/l	02/19/03 07:08	WG101312
Trichlorofluoromethane	<.001		mg/l	02/19/03 07:08	WG101312
Vinyl chloride	<.001		mg/l	02/19/03 07:08	WG101312

Analyte	Units	Duplicate	Result	Duplicate	RPD	Limit	Ref Samp	Batch
TOC (Total Organic Carbon)	mg/l	42.30	42.50	48.33	20	20	L104468#03	WG100881

Analyte	Units	Laboratory Control Sample	Known Val	Result	% Rec	Limit	Batch
Chloride	mg/l	20	18.0	90.1	90-110	WG100825	
Nitrate	mg/l	4	3.56	88.9	90-110	WG100825	
Sulfate	mg/l	20	17.7	88.3	85-115	WG100825	
Iron, Dissolved	mg/l	1.13	1.08	95.6	85-115	WG100852	
Manganese, Dissolved	mg/l	1.13	1.09	96.5	85-115	WG100852	
TOC (Total Organic Carbon)	mg/l	4	4.00	100.	85-115	WG100881	
1,1,1-Trichloroethane	mg/l	.02	0.0190	95.1	71-122	WG101038	
1,1,2,2-Tetrachloroethane	mg/l	.02	0.0154	77.2	78-120	WG101038	
1,1,2-Trichloroethane	mg/l	.02	0.0173	86.5	82-117	WG101038	
1,1-Dichloroethane	mg/l	.02	0.0190	95.2	59-135	WG101038	
1,1-Dichloroethene	mg/l	.02	0.0250	125.	60-166	WG101038	
1,2-Dibromoethane	mg/l	.02	0.0177	88.5	79-121	WG101038	
1,2-Dichlorobenzene	mg/l	.02	0.0180	90.1	83-113	WG101038	
1,2-Dichloroethane	mg/l	.02	0.0185	92.6	81-122	WG101038	
1,2-Dichloropropane	mg/l	.02	0.0182	91.0	74-125	WG101038	
1,3-Dichlorobenzene	mg/l	.02	0.0159	79.4	80-124	WG101038	
1,4-Dichlorobenzene	mg/l	.02	0.0182	91.2	84-115	WG101038	
2-Chloroethyl vinyl ether	mg/l	.1	0.308	308.	15-161	WG101038	
Bromodichloromethane	mg/l	.02	0.0172	85.9	76-117	WG101038	
Bromoform	mg/l	.02	0.0163	81.6	72-125	WG101038	
Bromomethane	mg/l	.02	0.0326	163.	25-170	WG101038	
Carbon Tetrachloride	mg/l	.02	0.0190	95.2	65-127	WG101038	
Chlorobenzene	mg/l	.02	0.0184	91.9	79-117	WG101038	
Chlorodibromomethane	mg/l	.02	0.0170	84.9	76-115	WG101038	
Chloroethane	mg/l	.02	0.0442	221.	37-130	WG101038	
Chloroform	mg/l	.02	0.0187	93.5	70-119	WG101038	
Chloromethane	mg/l	.02	0.0214	107.	39-109	WG101038	
cis-1,2-Dichloroethene	mg/l	.02	0.0195	97.5	72-128	WG101038	
cis-1,3-Dichloropropene	mg/l	.02	0.0185	92.3	86-137	WG101038	
Dichlorodifluoromethane	mg/l	.02	0.0192	96.1	14-133	WG101038	
Ethylene chloride	mg/l	.02	0.0243	121.	60-127	WG101038	
Tetrachloroethene	mg/l	.02	0.0181	90.3	71-132	WG101038	
trans-1,2-Dichloroethene	mg/l	.02	0.0250	125.	65-141	WG101038	
trans-1,3-Dichloropropene	mg/l	.02	0.0173	86.7	82-132	WG101038	

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Quality Assurance Report

Level II

L104423

March 01, 2004

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
Trichloroethene	mg/l	.02	0.0186	92.8	81-129	WG101038
Trichlorofluoromethane	mg/l	.02	0.0147	73.5	46-94	WG101038
Vinyl chloride	mg/l	.02	0.0216	108.	40-95	WG101038
Alkalinity	mg/l	140	150	107.	85-115	WG101058
1,1,1-Trichloroethane	mg/l	.02	0.0220	110.	71-122	WG101312
1,1,2,2-Tetrachloroethane	mg/l	.02	0.0212	106.	78-120	WG101312
1,1,2-Trichloroethane	mg/l	.02	0.0199	99.6	82-117	WG101312
1,1-Dichloroethane	mg/l	.02	0.0242	121.	59-135	WG101312
1,1-Dichloroethene	mg/l	.02	0.0254	127.	60-166	WG101312
1,2-Dibromoethane	mg/l	.02	0.0197	98.6	79-121	WG101312
1,2-Dichlorobenzene	mg/l	.05	0.0220	44.0	83-113	WG101312
1,2-Dichloroethane	mg/l	.02	0.0244	122.	81-122	WG101312
1,2-Dichloropropane	mg/l	.02	0.0208	104.	74-125	WG101312
1,3-Dichlorobenzene	mg/l	.05	0.0216	43.3	80-124	WG101312
1,4-Dichlorobenzene	mg/l	.05	0.0234	46.9	84-115	WG101312
2-Chloroethyl vinyl ether	mg/l	.1	0.0990	99.0	15-161	WG101312
Bromodichloromethane	mg/l	.02	0.0211	106.	76-117	WG101312
Bromoform	mg/l	.02	0.0183	91.6	72-125	WG101312
Bromomethane	mg/l	.02	0.0188	93.9	25-170	WG101312
Carbon Tetrachloride	mg/l	.02	0.0220	110.	65-127	WG101312
Chlorobenzene	mg/l	.02	0.0199	99.3	79-117	WG101312
Chlorodibromomethane	mg/l	.02	0.0188	94.2	76-115	WG101312
Chloroethane	mg/l	.02	0.0538	269.	37-130	WG101312
Chloroform	mg/l	.02	0.0242	121.	70-119	WG101312
Chloromethane	mg/l	.02	0.0156	78.0	39-109	WG101312
cis-1,2-Dichloroethene	mg/l	.02	0.0233	117.	72-128	WG101312
cis-1,3-Dichloropropene	mg/l	.02	0.0211	106.	86-137	WG101312
Dichlorodifluoromethane	mg/l	.02	0.00703	35.2	14-133	WG101312
Methylene chloride	mg/l	.02	0.0349	174.	60-127	WG101312
Tetrachloroethene	mg/l	.02	0.0211	106.	71-132	WG101312
trans-1,2-Dichloroethene	mg/l	.02	0.0249	124.	65-141	WG101312
trans-1,3-Dichloropropene	mg/l	.02	0.0199	99.5	82-132	WG101312
Trichloroethene	mg/l	.02	0.0219	109.	81-129	WG101312
Trichlorofluoromethane	mg/l	.02	0.0164	81.9	46-94	WG101312
Vinyl chloride	mg/l	.02	0.0155	77.3	40-95	WG101312

Analyte	Matrix Spike Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
TOC (Total Organic Carbon)	mg/l	25.0	26.40	20	93.0	80-120	L104423-01	WG100881
Analyte	Matrix Spike Duplicate Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
TOC (Total Organic Carbon)	mg/l	27.0	25.0	7.69	20	103	L104423-01	WG100881

Batch number / Run number / Sample number cross reference

WG100825: R149945: L104423-01 02 03 04 05 06
 WG100837: R149947: L104423-01 02 03 04 05 06
 WG100852: R149950: L104423-01 02 03 04 05 06
 WG101038: R150040: L104423-02 03 04 05 06
 WG101058: R150041: L104423-01 02 03 04 05 06
 WG101057: R150056: L104423-01 02 03 04 05 06
 WG101089: R150109: L104423-05 06
 WG100881: R150118: L104423-01 02 03 04 05 06
 WG101088: R150121: L104423-01 02 03 04

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Quality Assurance Report
Level II
L104423

March 01, 2004

WG101303: R150193: L104423-01 02 04 05
WG101444: R150309: L104423-03 06
WG101312: R150394: L104423-01

* See Attachment B of standard report for list of qualifiers.
* Calculations are performed prior to rounding of reported values

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Quality Assurance Report
Level II
L104423

March 01, 2004

ESC Level 2 Data Package

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Quantum Environmental Inc.

6001 Chapel Hill Road. Suite 108
Raleigh, NC 27607

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody

Page 1 of 2

Report to: Mr. Michael Dwyer Tom Davis

Email: mdwyer@QUANTUMCOS.c

Project Description: Teor - HRC

City/State Collected NC

Phone: (919) 852-3595
FAX: (919) 852-1997

Client Project #: 0013-94-012

Lab Project #

OUANTUM-HRCINJECTI

Collected by (print): Tom Davis

Site/Facility ID#:

P.O.#:

Collected by (signature):

Rush? (Lab MUST Be Notified)

Same Day 200%
Next Day 100%
Two Day 50%

Date Results Needed

Email? No X Yes
FAX? No Yes

Packed on Ice N Y

No. of Cntrs JE

ALK, Dissolved Mtls 500mlHDPE-NoPres

ETHANE 40mlAmb-NoPres

ETHENE 40mlAmb-HCl

FERUSFE 250mlAmb-HCl

METHANE 40mlAmb-NoPres

NO3, CO2, SO4, CL 500mlHDPE-NaOH+ZnAc

TOC 250mlAmb-Septa-HCl

CoCode: QUANTUM (lab use only)

Template/Prelogin T17810/P75986

Cooler #: 2-5-B

Shipped Via: FedEX 2nd Day

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time		Remarks/Contaminant	Sample # (lab only)
MW-25	G	GW		2/13/03	1300	13 X X X X X X X X X X X X		L104423-01
MW-18	I	GW			1330	13 X X X X X X X X X X X X		-02
MW-29	I	GW			1430	13 X X X X X X X X X X X X		-03
MW-24 I	I	GW			1500	13 X X X X X X X X X X X X		-04
MW-25 I	I	GW			1530	13 X X X X X X X X X X X X		-05
BW-5	I	GW			1600	1013 X X X X X X X X X X X X		-06

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH _____ Temp _____

Remarks: Please note:

Flow _____ Other _____

Ferrous Iron and CO2 have 24 hr hold times.

Nitrate has 48 hr hold time.

Relinquished by: (Signature)	Date: 2/13	Time: 16:50	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 31C Bottles Received: 75+TB	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2/14/03 Time: 09:15	pH Checked: 22712 NCF: ✓

Quantum Environmental Inc. 6001 Chapel Hill Road. Suite 108 Raleigh, NC 27607				Alternate billing information:		Analysis/Container/Preservative						Chain of Custody Page 2 of 2			
Report to: Mr. Michael Dwyer Tom Davis		Email: mdwyer@QUANTUMCOs.c								Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859					
Project Description: Tear-HRC		City/State Collected NC													
Phone: (919) 852-3595 FAX: (919) 852-1997		Client Project #: 0013-94-012		Lab Project # OUANTUM-HRCINJECTI											
Collected by (print): Tom Davis		Site/Facility ID#: Y601		P.O.#:											
Collected by (signature): TD		Rush? <input checked="" type="checkbox"/> (Lab MUST Be Notified) <input type="checkbox"/> Same Day 200% <input type="checkbox"/> Next Day 100% <input type="checkbox"/> Two Day 50%		Date Results Needed <input type="checkbox"/> Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes <input type="checkbox"/> FAX? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes		No. of Cntrs	V601 40mlAmb-HCl							CoCode: OUANTUM (lab use only) Template/Prelogin: T17810/P75986 Cooler #: 2503 BT Shipped Via: FedEX 2nd Dav.	
Packed on Ice N															
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	V601 40mlAmb-HCl							Remarks/Contaminant	Sample # (lab only)
MW-25	G	GW		2/13/03	1300	13	X								(104423-01
MW-18	"	GW		11	1330	13	X								-02
MW-29	"	GW		11	1430	13	X								-03
MW-29 I	"	GW		11	1500	13	X								-04
MW-25 I	"	GW		11	1530	13	X								-05
R W-5	"	GW		11	1600	13	X								-06

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

Remarks: Please note:

Ferrous Iron and CO2 have 24 hr hold times.

Nitrate has 48 hr hold time.

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature)	Date: 2/13	Time: 16:50	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: _____ (lab use only)
Relinquished by: (Signature)	Date: _____	Time: _____	Received by: (Signature)	Temp: 3.1C Bottles Received: 75FTB	
Relinquished by: (Signature)	Date: _____	Time: _____	Received for lab by: (Signature)	Date: 2/14/03 Time: 09:15	pH Checked: 2.712 NCF: ✓

ENVIRONMENTAL SCIENCE CORP.

SAMPLE NON-CONFORMANCE FORM

Sample No.: L104423

Date: 2-14-03

Evaluated by: Jasen

Client: QUANTUM

Non-Conformance (check applicable items)

- | | | | |
|--------------------------|--|-------------------------------------|---|
| <input type="checkbox"/> | Chain of Custody is missing | <input checked="" type="checkbox"/> | Login Clarification Needed |
| <input type="checkbox"/> | Improper container type | <input type="checkbox"/> | Improper preservation |
| <input type="checkbox"/> | Chain of custody is incomplete | <input type="checkbox"/> | Container lid not in tact |
| <input type="checkbox"/> | Parameter(s) past holding time | <input type="checkbox"/> | Improper temperature |
| <input type="checkbox"/> | Broken container(s) see below | <input type="checkbox"/> | Broken container: sufficient sample volume remains for analysis requested |
| <input type="checkbox"/> | Insufficient packing material around container | | |
| <input type="checkbox"/> | Insufficient packing material inside cooler | | |
| <input type="checkbox"/> | Improper handling by carrier (FedEx / UPS / Courier) | | |
| <input type="checkbox"/> | Sample was frozen | | |

Comments: RW-5 - Missing 2 containers. One vial is ½ full.

Login Instructions:

TSR Initials: Ob

Client informed by call email / fax / voice mail date: 2/14/03 time: _____

Client contact: Tom Davis

- Send 1-40ml-noPres and the ½ full vial to
the subout lab. for RW-5
- Add Comment to this login - Low volume, use sparingly
- send 2-40ml-NoPres to subout lab for 29I +25I

Appendix B

Appendix B

March 2003

**Laboratory Analytical Results
and
Chain of Custody**



ENVIRONMENTAL
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Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

April 18, 2003

Date Received : March 22, 2003
Description : Teer Post HRC Event 4
Sample ID : MW-25I
Collected By : Tom Davis
Collection Date : 03/21/03 12:05

ESC Sample # : L108148-01

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		04/12/03	1
Butyric Acid	BDL	12.	mg/l		04/12/03	1
Lactic Acid	BDL	1.2	mg/l		04/12/03	1
Propionic Acid	BDL	6.1	mg/l		04/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		04/12/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A21A - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 04/18/03 10:19 Printed: 04/18/03 10:20

L108148-01 (ORG_ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

Cheli Boucher
Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

April 18, 2003

Date Received : March 22, 2003
Description : Teer Post HRC Event 4
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 03/21/03 12:45

ESC Sample # : L108148-02

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		04/12/03	1
Butyric Acid	BDL	12.	mg/l		04/12/03	1
Lactic Acid	BDL	1.2	mg/l		04/12/03	1
Propionic Acid	BDL	6.1	mg/l		04/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		04/12/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L108148-02 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

Cheli Boucher
Cheli Boucher, ESC Representative


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REPORT OF ANALYSIS

Mr. Tom Davis
 Quantum Environmental Inc.
 6001 Chapel Hill Road, Suite 108
 Raleigh, NC 27607

April 18, 2003

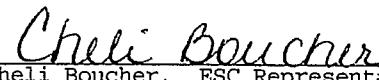
Date Received : March 22, 2003
 Description : Teer Post HRC Event 4
 Sample ID : MW-25
 Collected By : Tom Davis
 Collection Date : 03/21/03 13:20

ESC Sample # : L108148-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		04/12/03	1
Butyric Acid	BDL	12.	mg/l		04/12/03	1
Lactic Acid	BDL	1.2	mg/l		04/12/03	1
Propionic Acid	BDL	6.1	mg/l		04/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		04/12/03	1


Cheli Boucher

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2ILA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
 KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

April 18, 2003

Date Received : March 22, 2003
Description : Teer Post HRC Event 4
Sample ID : MW-18
Collected By : Tom Davis
Collection Date : 03/21/03 14:05

ESC Sample # : L108148-04

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		04/12/03	1
Butyric Acid	BDL	12.	mg/l		04/12/03	1
Lactic Acid	BDL	1.2	mg/l		04/12/03	1
Propionic Acid	BDL	6.1	mg/l		04/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		04/12/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L108148-04 (ORG_ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

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Cheli Boucher, ESC Representative


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REPORT OF ANALYSIS

Mr. Tom Davis
 Quantum Environmental Inc.
 6001 Chapel Hill Road, Suite 108
 Raleigh, NC 27607

April 18, 2003

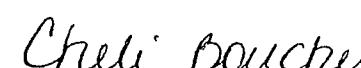
Date Received : March 22, 2003
 Description : Teer Post HRC Event 4
 Sample ID : MW-29
 Collected By : Tom Davis
 Collection Date : 03/21/03 14:40

ESC Sample # : L108148-05

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		04/12/03	1
Butyric Acid	BDL	12.	mg/l		04/12/03	1
Lactic Acid	BDL	1.2	mg/l		04/12/03	1
Propionic Acid	BDL	6.1	mg/l		04/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		04/12/03	1


 Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
 KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L108148-05 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

April 18, 2003

Date Received : March 22, 2003
Description : Teer Post HRC Event 4
Sample ID : MW-29I
Collected By : Tom Davis
Collection Date : 03/21/03 15:30

ESC Sample # : L108148-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		04/12/03	1
Butyric Acid	23.	12.	mg/l		04/12/03	1
Lactic Acid	BDL	1.2	mg/l		04/12/03	1
Propionic Acid	130	6.1	mg/l		04/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		04/12/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 04/18/03 10:19 Printed: 04/18/03 10:20

L108148-06 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

Cheli Boucher
Cheli Boucher, ESC Representative

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L108148-06	Butyric Acid	J

Quantum Environmental Inc. 6001 Chapel Hill Road, Suite 108 Raleigh, NC 27607				Alternate billing information:				Analysis/Container/Preservative				Chain of Custody Page 1 of 1		
Report to: Mr. Tom Davis		Email: tdavis@quantumcos.com										Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859		
Project Description: <i>Teer - HRC Event #1</i>		City/State Collected <i>NC</i>												
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project #: <i>0013-94-012</i>	Lab Project # OUANTUM-HRCINJECTI												
Collected by (print): <i>Tom Davis</i>	Site/Facility ID#: —	P.O.#:												
Collected by (signature): <i>JHD</i>	Rush? <input checked="" type="checkbox"/> (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50%	Date Results Needed		No. of Cntrs	SUB-ORG ACIDS 40mlCH-NaPres								CoCode: OUANTUM (lab use only) Template/Prelogin T17811/P79075 Cooler #: 3/12/03 TP3 Shipped Via: FedEX Ground	
Packed on Ice N <i>Q</i>	Email? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes													
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time									Remarks/Contaminant Sample # (lab only)
MW-25T	G	GW	—	3/21/03	1205	2	X						L108148-01	
BW-5		GW	—		1245	2	X						-02	
MW-25		GW	—		1320	2	X						-03	
MW-18		GW	—		1405	2	X						-04	
MW-29		GW	—		1440	2	X						-05	
MW-29I		GW	—		1530	2	X						-06	

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature) <i>JHD</i>	Date: <i>3/21/03</i>	Time: <i>1700</i>	Received by: (Signature) <i>TD</i>	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only) <i>OK</i>
Relinquished by: (Signature) <i>JHD</i>	Date: _____	Time: _____	Received by: (Signature) <i>TD</i>	Temp: <i>3.1C</i> Bottles Received: <i>12-U</i>	
Relinquished by: (Signature) <i>JHD</i>	Date: _____	Time: _____	Received for lab by: (Signature) <i>TD</i>	Date: <i>3-22-03</i> Time: <i>10:15</i>	pH Checked: _____ NCF: _____



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : March 22, 2003 ESC Sample # : L108144-01
Description : Teer Post HRS Event 1 Site ID :
Sample ID : MW-25I Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 03/21/03 12:05

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ppb	8015M	03/26/03	1
Chloride	13000	1000	ug/l	9056	03/24/03	1
Nitrate	BDL	100	ug/l	9056	03/24/03	1
Sulfate	BDL	5000	ug/l	9056	03/24/03	1
Alkalinity	340000	20000	ug/l	310.2	03/26/03	2
Free Carbon Dioxide	70000	10000	ug/l	406B	03/24/03	1
Ethane	BDL	1000	ppb	8015M	03/26/03	1
Ethene	BDL	1000	ppb	8015M	03/26/03	1
Ferrous Iron	1100	50.	ug/l	3500Fe	03/22/03	1
Sulfide	BDL	50.	ug/l	9030B	03/24/03	1
TOC (Total Organic Carbon)	92000	1000	ug/l	9060	03/25/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	03/24/03	1
Manganese, Dissolved	6100	10.	ug/l	6010B	03/24/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	03/24/03	1
Bromoform	BDL	1.0	ug/l	601MS	03/24/03	1
Bromomethane	BDL	1.0	ug/l	601MS	03/24/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	03/24/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	03/24/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	03/24/03	1
Chloroethane	BDL	1.0	ug/l	601MS	03/24/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	03/24/03	1
Chloroform	BDL	1.0	ug/l	601MS	03/24/03	1
Chloromethane	BDL	1.0	ug/l	601MS	03/24/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	03/24/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/24/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/24/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/24/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	03/24/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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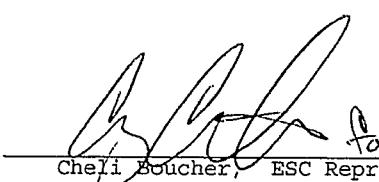
Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : March 22, 2003
Description : Teer Post HRS Event 1
Sample ID : MW-25I
Collected By : Tom Davis
Collection Date : 03/21/03 12:05

ESC Sample # : L108144-01
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	28.	1.0	ug/l	601MS	03/24/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	03/24/03	1
1,1-Dichloroethene	35.	1.0	ug/l	601MS	03/24/03	1
cis-1,2-Dichloroethene	14.	1.0	ug/l	601MS	03/24/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	03/24/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	03/24/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/24/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/24/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	03/24/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	03/24/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	03/24/03	1
1,1,1-Trichloroethane	27.	1.0	ug/l	601MS	03/24/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	03/24/03	1
Trichloroethene	9.1	1.0	ug/l	601MS	03/24/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	03/24/03	1
Vinyl chloride	3.6	1.0	ug/l	601MS	03/24/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : March 22, 2003	ESC Sample # : L108144-02
Description : Teer Post HRS Event 1	
Sample ID : RW-5	Site ID :
Collected By : Tom Davis	Project # : 0013-94-012
Collection Date : 03/21/03 12:45	

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ppb	8015M	03/26/03	1
Chloride	34000	1000	ug/l	9056	03/24/03	1
Nitrate	BDL	100	ug/l	9056	03/24/03	1
Sulfate	7200	5000	ug/l	9056	03/24/03	1
Alkalinity	370000	20000	ug/l	310.2	03/26/03	2
Free Carbon Dioxide	39000	10000	ug/l	406B	03/24/03	1
Ethane	BDL	1000	ppb	8015M	03/26/03	1
Ethene	BDL	1000	ppb	8015M	03/26/03	1
Ferrous Iron	700	50.	ug/l	3500Fe	03/22/03	1
Sulfide	BDL	50.	ug/l	9030B	03/24/03	1
TOC (Total Organic Carbon)	49000	1000	ug/l	9060	03/25/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	03/24/03	1
Manganese, Dissolved	14000	10.	ug/l	6010B	03/24/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	03/25/03	1
Bromoform	BDL	1.0	ug/l	601MS	03/25/03	1
Bromomethane	BDL	1.0	ug/l	601MS	03/25/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	03/25/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	03/25/03	1
Chloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	03/25/03	1
Chloroform	BDL	1.0	ug/l	601MS	03/25/03	1
Chloromethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	03/25/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : March 22, 2003
Description : Teer Post HRS Event 1
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 03/21/03 12:45

ESC Sample # : L108144-02
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	21.	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,1-Dichloroethene	16.	1.0	ug/l	601MS	03/25/03	1
cis-1,2-Dichloroethene	6.4	1.0	ug/l	601MS	03/25/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	03/25/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	03/25/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,1,1-Trichloroethane	23.	1.0	ug/l	601MS	03/25/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Trichloroethene	7.2	1.0	ug/l	601MS	03/25/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	03/25/03	1
Vinyl chloride	2.7	1.0	ug/l	601MS	03/25/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : March 22, 2003 ESC Sample # : L108144-03
Description : Teer Post HRS Event 1 Site ID :
Sample ID : MW-25 Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 03/21/03 13:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ppb	8015M	03/26/03	1
Chloride	20000	1000	ug/l	9056	03/24/03	1
Nitrate	BDL	100	ug/l	9056	03/24/03	1
Sulfate	BDL	5000	ug/l	9056	03/24/03	1
Alkalinity	330000	20000	ug/l	310.2	03/26/03	2
Free Carbon Dioxide	75000	10000	ug/l	406B	03/24/03	1
Ethane	BDL	1000	ppb	8015M	03/26/03	1
Ethene	BDL	1000	ppb	8015M	03/26/03	1
Ferrous Iron	4800	100	ug/l	3500Fe	03/22/03	2
Sulfide	BDL	50.	ug/l	9030B	03/24/03	1
TOC (Total Organic Carbon)	80000	1000	ug/l	9060	03/25/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	03/24/03	1
Manganese, Dissolved	12000	10.	ug/l	6010B	03/24/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	03/25/03	1
Bromoform	BDL	1.0	ug/l	601MS	03/25/03	1
Bromomethane	BDL	1.0	ug/l	601MS	03/25/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	03/25/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
Chlorodibromométhane	BDL	1.0	ug/l	601MS	03/25/03	1
Chloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	03/25/03	1
Chloroform	BDL	1.0	ug/l	601MS	03/25/03	1
Chloromethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	03/25/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : March 22, 2003
Description : Teer Post HRS Event 1
Sample ID : MW-25
Collected By : Tom Davis
Collection Date : 03/21/03 13:20

ESC Sample # : L108144-03
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	28.	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,1-Dichloroethene	27.	1.0	ug/l	601MS	03/25/03	1
cis-1,2-Dichloroethene	8.7	1.0	ug/l	601MS	03/25/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	03/25/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	03/25/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,1,1-Trichloroethane	31.	1.0	ug/l	601MS	03/25/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Trichloroethene	9.1	1.0	ug/l	601MS	03/25/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	03/25/03	1
Vinyl chloride	3.7	1.0	ug/l	601MS	03/25/03	1



Chelli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	March 22, 2003	ESC Sample # :	L108144-04
Description :	Teer Post HRS Event 1	Site ID :	
Sample ID :	MW-18	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	03/21/03 14:05		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ppb	8015M	03/26/03	1
Chloride	3900	1000	ug/l	9056	03/24/03	1
Nitrate	BDL	100	ug/l	9056	03/24/03	1
Sulfate	13000	5000	ug/l	9056	03/24/03	1
Alkalinity	210000	10000	ug/l	310.2	03/26/03	1
Free Carbon Dioxide	85000	10000	ug/l	406B	03/24/03	1
Ethane	BDL	1000	ppb	8015M	03/26/03	1
Ethene	BDL	1000	ppb	8015M	03/26/03	1
Ferrous Iron	2200	50.	ug/l	3500Fe	03/22/03	1
Sulfide	BDL	50.	ug/l	9030B	03/24/03	1
TOC (Total Organic Carbon)	8000	1000	ug/l	9060	03/25/03	1
Iron, Dissolved	2600	50.	ug/l	6010B	03/24/03	1
Manganese, Dissolved	1700	10.	ug/l	6010B	03/24/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	03/25/03	1
Bromoform	BDL	1.0	ug/l	601MS	03/25/03	1
Bromomethane	BDL	1.0	ug/l	601MS	03/25/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	03/25/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	03/25/03	1
Chloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	03/25/03	1
Chloroform	BDL	1.0	ug/l	601MS	03/25/03	1
Chloromethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	03/25/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : March 22, 2003
Description : Teer Post HRS Event 1
Sample ID : MW-18
Collected By : Tom Davis
Collection Date : 03/21/03 14:05

ESC Sample # : L108144-04
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	03/25/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	03/25/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	03/25/03	1
Vinyl chloride	BDL	1.0	ug/l	601MS	03/25/03	1



Chellie Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : March 22, 2003
Description : Teer Post HRS Event 1
Sample ID : MW-29
Collected By : Tom Davis
Collection Date : 03/21/03 14:40

ESC Sample # : L108144-05
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	03/25/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	03/25/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	03/25/03	1
Vinyl chloride	BDL	1.0	ug/l	601MS	03/25/03	1



Chelli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	March 22, 2003	ESC Sample # :	L108144-06
Description :	Teer Post HRS Event 1	Site ID :	
Sample ID :	MW-29I	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	03/21/03 15:30		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000.	ppb	8015M	03/26/03	1
Chloride	16000	1000	ug/l	9056	03/24/03	1
Nitrate	410	100	ug/l	9056	03/24/03	1
Sulfate	9000	5000	ug/l	9056	03/24/03	1
Alkalinity	380000	20000	ug/l	310.2	03/26/03	2
Free Carbon Dioxide	240000	10000	ug/l	406B	03/24/03	1
Ethane	BDL	1000	ppb	8015M	03/26/03	1
Ethene	BDL	1000	ppb	8015M	03/26/03	1
Ferrous Iron	1800	50.	ug/l	3500Fe	03/22/03	1
Sulfide	BDL	50.	ug/l	9030B	03/24/03	1
TOC (Total Organic Carbon)	420000	1000	ug/l	9060	03/25/03	1
Iron, Dissolved	950	50.	ug/l	6010B	03/24/03	1
Manganese, Dissolved	7700	10.	ug/l	6010B	03/24/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	03/25/03	1
Bromoform	BDL	1.0	ug/l	601MS	03/25/03	1
Bromomethane	BDL	1.0	ug/l	601MS	03/25/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	03/25/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	03/25/03	1
Chloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	03/25/03	1
Chloroform	BDL	1.0	ug/l	601MS	03/25/03	1
Chloromethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	03/25/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	03/25/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : March 22, 2003
Description : Teer Post HRS Event 1
Sample ID : MW-29I
Collected By : Tom Davis
Collection Date : 03/21/03 15:30

ESC Sample # : L108144-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	9.7	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
cis-1,2-Dichloroethene	4.2	1.0	ug/l	601MS	03/25/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	03/25/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	03/25/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	03/25/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	03/25/03	1
1,1,1-Trichloroethane	3.2	1.0	ug/l	601MS	03/25/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	03/25/03	1
Trichloroethene	5.7	1.0	ug/l	601MS	03/25/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	03/25/03	1
Vinyl chloride	1.4	1.0	ug/l	601MS	03/25/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Quantum Environmental Inc.
Mr. Tom Davis
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

**Quality Assurance Report
Level II**

L108144

March 01, 2004

Analyte	Laboratory Blank		Date Analyzed	Batch
	Result	Units		
Chloride	<.1	mg/l	03/22/03 20:21	WG105012
Nitrate	< .1	mg/l	03/22/03 20:21	WG105012
Sulfate	< 5	mg/l	03/22/03 20:21	WG105012
Iron, Dissolved	< .05	mg/l	03/24/03 19:26	WG105090
Manganese, Dissolved	< .01	mg/l	03/24/03 19:26	WG105090
1,1,1-Trichloroethane	< .001	mg/l	03/24/03 10:42	WG105128
1,1,2,2-Tetrachloroethane	< .001	mg/l	03/24/03 10:42	WG105128
1,1,2-Trichloroethane	< .001	mg/l	03/24/03 10:42	WG105128
1,1-Dichloroethane	< .001	mg/l	03/24/03 10:42	WG105128
1,1-Dichloroethene	< .001	mg/l	03/24/03 10:42	WG105128
1,2-Dibromoethane	< .001	mg/l	03/24/03 10:42	WG105128
1,2-Dichlorobenzene	< .001	mg/l	03/24/03 10:42	WG105128
1,2-Dichloroethane	< .001	mg/l	03/24/03 10:42	WG105128
1,2-Dichloropropane	< .001	mg/l	03/24/03 10:42	WG105128
1,3-Dichlorobenzene	< .001	mg/l	03/24/03 10:42	WG105128
1,4-Dichlorobenzene	< .001	mg/l	03/24/03 10:42	WG105128
2-Chloroethyl vinyl ether	< .001	mg/l	03/24/03 10:42	WG105128
Bromodichloromethane	< .001	mg/l	03/24/03 10:42	WG105128
Bromoform	< .001	mg/l	03/24/03 10:42	WG105128
Bromomethane	< .001	mg/l	03/24/03 10:42	WG105128
Carbon Tetrachloride	< .001	mg/l	03/24/03 10:42	WG105128
Chlorobenzene	< .001	mg/l	03/24/03 10:42	WG105128
Chlorodibromomethane	< .001	mg/l	03/24/03 10:42	WG105128
Chloroethane	< .001	mg/l	03/24/03 10:42	WG105128
Chloroform	< .005	mg/l	03/24/03 10:42	WG105128
Chloromethane	< .001	mg/l	03/24/03 10:42	WG105128
cis-1,2-Dichloroethene	< .001	mg/l	03/24/03 10:42	WG105128
cis-1,3-Dichloropropene	< .001	mg/l	03/24/03 10:42	WG105128
Dichlorodifluoromethane	< .001	mg/l	03/24/03 10:42	WG105128
Methylene chloride	< .005	mg/l	03/24/03 10:42	WG105128
Tetrachloroethene	< .001	mg/l	03/24/03 10:42	WG105128
trans-1,2-Dichloroethene	< .001	mg/l	03/24/03 10:42	WG105128
trans-1,3-Dichloropropene	< .001	mg/l	03/24/03 10:42	WG105128
Trichloroethene	< .001	mg/l	03/24/03 10:42	WG105128
Trichlorofluoromethane	< .001	mg/l	03/24/03 10:42	WG105128
Vinyl chloride	< .001	mg/l	03/24/03 10:42	WG105128
Alkalinity	< 10	mg/l	03/26/03 13:49	WG105358

Analyte	Laboratory Control Sample		% Rec	Limit	Batch
	Units	Known Val			
Chloride	mg/l	.20	91.5	90-110	WG105012
Nitrate	mg/l	4	91.9	90-110	WG105012
Sulfate	mg/l	20	91.1	85-115	WG105012
Iron, Dissolved	mg/l	1.13	108.	85-115	WG105090
Manganese, Dissolved	mg/l	1.13	106.	85-115	WG105090
1,1,1-Trichloroethane	mg/l	.02	111.	71-122	WG105128
1,1,2,2-Tetrachloroethane	mg/l	.02	100.	78-120	WG105128
1,1,2-Trichloroethane	mg/l	.02	98.3	82-117	WG105128
1,1-Dichloroethane	mg/l	.02	113.	59-135	WG105128
1,1-Dichloroethene	mg/l	.02	132.	60-166	WG105128
1,2-Dibromoethane	mg/l	.02	101.	79-121	WG105128
1,2-Dichlorobenzene	mg/l	.05	42.2	83-113	WG105128
1,2-Dichloroethane	mg/l	.02	122.	81-122	WG105128
1,2-Dichloropropane	mg/l	.02	99.9	74-125	WG105128



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Quantum Environmental Inc.
Mr. Tom Davis
001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

**Quality Assurance Report
Level II**

March 01, 2004

L108144

3-Dichlorobenzene	mg/l	.05	0.0205	41.0	80-124	WG105128
alyte	Units	Laboratory Control Sample Known Val	Result	% Rec	Limit	Batch
4-Dichlorobenzene	mg/l	0.05	0.0227	45.3	84-115	WG105128
Chloroethyl vinyl ether	mg/l	.1	0.0352	35.2	15-161	WG105128
Dichloromethane	mg/l	.02	0.0197	98.6	76-117	WG105128
Formoform	mg/l	.02	0.0161	80.4	72-125	WG105128
Omethylane	mg/l	.02	0.0296	148.	25-170	WG105128
on Tetrachloride	mg/l	.02	0.0220	110.	65-127	WG105128
robenzene	mg/l	.02	0.0195	97.3	79-117	WG105128
rodibromomethane	mg/l	.02	0.0179	89.3	76-115	WG105128
loroethane	mg/l	.02	0.0816	408.	37-130	WG105128
loroform	mg/l	.02	0.0211	106.	70-119	WG105128
romethane	mg/l	.02	0.0247	124.	39-109	WG105128
1,2-Dichloroethene	mg/l	.02	0.0211	106.	72-128	WG105128
1,3-Dichloropropene	mg/l	.02	0.0225	113.	86-137	WG105128
chlorodifluoromethane	mg/l	.02	0.0262	131.	14-133	WG105128
thylene chloride	mg/l	.02	0.0234	117.	60-127	WG105128
achloroethene	mg/l	.02	0.0201	101.	71-132	WG105128
ns-1,2-Dichloroethene	mg/l	.02	0.0232	116.	65-141	WG105128
ns-1,3-Dichloropropene	mg/l	.02	0.0214	107.	82-132	WG105128
ichloroethene	mg/l	.02	0.0222	111.	81-129	WG105128
ichlorofluoromethane	mg/l	.02	0.0201	101.	46-94	WG105128
l chloride	mg/l	.02	0.0213	107.	40-95	WG105128
kalinity	mg/l	65	55.8	85.9	85-115	WG105358

atch number /Run number / Sample number cross reference

WG105014: R153362: L108144-01 02 03 04 05 06
 WG105012: R153401: L108144-01 02 03 04 05 06
 WG105099: R153436: L108144-01 02 03 04 05 06
 WG105163: R153573: L108144-01 02 03 04 05 06
 WG105090: R153622: L108144-01 02 03 04 05 06
 WG105207: R153832: L108144-01 02 03 04 05 06
 WG105128: R153852: L108144-01 02 03 04 05 06
 WG105358: R153934: L108144-01 02 03 04 05 06
 WG105516: R153938: L108144-01 02 03 04 05 06

* See Attachment B of standard report for list of qualifiers.

* Calculations are performed prior to rounding of reported values.

Appendix C

May 2003

**Laboratory Analytical Results
and
Chain of Custody**



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REPORT OF ANALYSIS

June 18, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : May 21, 2003 ESC Sample # : L114647-01
Description : Teer - HRC Monitoring Site ID :
Sample ID : RW-5 Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 05/20/03 12:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	40.	3.4	mg/l		06/12/03	1
Butyric Acid	BDL	12.	mg/l		06/12/03	1
Lactic Acid	BDL	1.2	mg/l		06/12/03	1
Propionic Acid	79.	6.1	mg/l		06/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		06/12/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L114647-01 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

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REPORT OF ANALYSIS

June 18, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received :	May 21, 2003	ESC Sample # :	L114647-02
Description :	Teer - HRC Monitoring	Site ID :	
Sample ID :	MW-18	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	05/20/03 12:25		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		06/12/03	1
Butyric Acid	BDL	12.	mg/l		06/12/03	1
Lactic Acid	BDL	1.2	mg/l		06/12/03	1
Propionic Acid	BDL	6.1	mg/l		06/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		06/12/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

June 18, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : MW-29
Collected By : Tom Davis
Collection Date : 05/20/03 13:00

ESC Sample # : L114647-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		06/12/03	1
Butyric Acid	BDL	12.	mg/l		06/12/03	1
Lactic Acid	BDL	1.2	mg/l		06/12/03	1
Propionic Acid	BDL	6.1	mg/l		06/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		06/12/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L114647-03 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

Cheli Boucher
Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

June 18, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : May 21, 2003 ESC Sample # : L114647-04
Description : Teer - HRC Monitoring Site ID :
Sample ID : MW-29I Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 05/20/03 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		06/12/03	1
Butyric Acid	BDL	12.	mg/l		06/12/03	1
Lactic Acid	BDL	1.2	mg/l		06/12/03	1
Propionic Acid	BDL	6.1	mg/l		06/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		06/12/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L114647-04 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.



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REPORT OF ANALYSIS

June 18, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : MW-25I
Collected By : Tom Davis
Collection Date : 05/20/03 14:00

ESC Sample # : L114647-05

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	54.	3.4	mg/l		06/12/03	1
Butyric Acid	BDL	12.	mg/l		06/12/03	1
Lactic Acid	BDL	1.2	mg/l		06/12/03	1
Propionic Acid	100	6.1	mg/l		06/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		06/12/03	1

Cheli Boucher

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L114647-05 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.



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12065 Lebanon Rd.
Mt. Juliet, TN 37122
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Est. 1970

REPORT OF ANALYSIS

June 18, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : MW-25
Collected By : Tom Davis
Collection Date : 05/20/03 14:20

ESC Sample # : L114647-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	72.	3.4	mg/l		06/12/03	1
Butyric Acid	22.	12.	mg/l		06/12/03	1
Lactic Acid	BDL	1.2	mg/l		06/12/03	1
Propionic Acid	140	6.1	mg/l		06/12/03	1
Pyruvic Acid	BDL	0.44	mg/l		06/12/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Note:

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L114647-06 (ORG ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

Cheli Boucher

Cheli Boucher, ESC Representative

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L114647-04	Butyric Acid Lactic Acid	J5 J5

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

Control Limits

2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	72-125
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	79-120
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	66-131

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Quantum Environmental Inc.

6001 Chapel Hill Road. Suite 108
Raleigh, NC 27607

Report to:
Mr. Tom Davis

Project Description:
Teer-HRC Monitoring

Phone: (919) 852-3595
FAX: (919) 852-1997

Collected by (print):
Tom Davis

Collected by (signature):
APL

Packed on Ice
(Y)

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Prepared by:

 ENVIRONMENTAL

SCIENCE CORP.

12065 Lebanon Road
Mt. Juliet, TN 37122

Phone (800) 767-5859
FAX (615) 758-5859

Email:
tdavis@quantumcos.com

City/State
Collected
NC

Client Project #:

0013-94-012

Lab Project #

OUANTUM-HRCINJECTI

Site/Facility ID#:

P.O.#:

Rush? (Lab MUST Be Notified)

Same Day 200%

Next Day 100%

Two Day 50%

Date Results Needed

Email? No Yes

FAX? No Yes

SUB-ORG ACIDS 40mlClr-NoPres

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time		Remarks/Contaminant	Sample # (lab only)
RW-5	G	GW		5/20/03	1200	2 X		211467-1
MW-18		GW			1225	2 X		22
MW-29		GW			1300	2 X		23
MW-292		GW			1330	2 X		-04
MW-25C		GW			1400	2 X		-05
MW-25		GW			1420	2 X		-06

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature) <i>TD</i>	Date: 5/20/03	Time: 1630	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) <i>dk</i>
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 3.5° Bottles Received: 12+1TB	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>Jamie Wheeler</i>	Date: 5/21/03 Time: 9:00	pH Checked: NCF:



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	May 21, 2003	ESC Sample # :	L114649-01
Description :	Teer - HRC Monitoring	Site ID :	
Sample ID :	RW-5	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	05/20/03 12:00		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ppb	8015M	05/29/03	1
Chloride	90000	1000	ug/l	9056	05/21/03	1
Nitrate	BDL	100	ug/l	9056	05/21/03	1
Sulfate	BDL	5000	ug/l	9056	05/21/03	1
Alkalinity	100000	10000	ug/l	310.2	05/22/03	1
Free Carbon Dioxide	120000	0.0	ug/l	406B	05/21/03	10
Ethane	BDL	1000	ppb	8015M	05/29/03	1
Ethene	BDL	1000	ppb	8015M	05/29/03	1
Ferrous Iron	3700	500	ug/l	3500Fe-B	05/21/03	10
Sulfide	BDL	50.	ug/l	9030B	05/22/03	1
TOC (Total Organic Carbon)	77000	1000	ug/l	9060	05/22/03	1
Iron, Dissolved	1100	50.	ug/l	6010B	05/23/03	1
Manganese, Dissolved	12000	10.	ug/l	6010B	05/23/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	05/22/03	1
Bromoform	BDL	1.0	ug/l	601MS	05/22/03	1
Bromomethane	BDL	1.0	ug/l	601MS	05/22/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	05/22/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	05/22/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	05/22/03	1
Chloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	05/22/03	1
Chloroform	BDL	1.0	ug/l	601MS	05/22/03	1
Chloromethane	BDL	1.0	ug/l	601MS	05/22/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	05/22/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/22/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/22/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/22/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	05/22/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

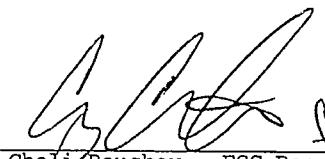
Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 05/20/03 12:00

ESC Sample # : L114649-01

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	42.	1.0	ug/l	601MS	05/22/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
1,1-Dichloroethene	21.	1.0	ug/l	601MS	05/22/03	1
cis-1,2-Dichloroethene	15.	1.0	ug/l	601MS	05/22/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	05/22/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	05/22/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/22/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/22/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	05/22/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	05/22/03	1
1,1,1-Trichloroethane	15.	1.0	ug/l	601MS	05/22/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
Trichloroethene	1.9	1.0	ug/l	601MS	05/22/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	05/22/03	1
Vinyl chloride	7.7	1.0	ug/l	601MS	05/22/03	1



for
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : MW-18
Collected By : Tom Davis
Collection Date : 05/20/03 12:25

ESC Sample # : L114649-02
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	3800	1000	ppb	8015M	05/29/03	1
Chloride	4100	1000	ug/l	9056	05/21/03	1
Nitrate	BDL	100	ug/l	9056	05/21/03	1
Sulfate	24000	5000	ug/l	9056	05/21/03	1
Alkalinity	220000	10000	ug/l	310.2	05/22/03	1
Free Carbon Dioxide	110000	0.0	ug/l	406B	05/21/03	1
Ethane	BDL	1000	ppb	8015M	05/29/03	1
Ethene	BDL	1000	ppb	8015M	05/29/03	1
Ferrous Iron	1400	500	ug/l	3500Fe-B	05/21/03	10
Sulfide	BDL	50.	ug/l	9030B	05/22/03	1
TOC (Total Organic Carbon)	11000	1000	ug/l	9060	05/22/03	1
Iron, Dissolved	1700	50.	ug/l	6010B	05/23/03	1
Manganese, Dissolved	680	10.	ug/l	6010B	05/23/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	05/22/03	1
Bromoform	BDL	1.0	ug/l	601MS	05/22/03	1
Bromomethane	BDL	1.0	ug/l	601MS	05/22/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	05/22/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	05/22/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	05/22/03	1
Chloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	05/22/03	1
Chloroform	BDL	1.0	ug/l	601MS	05/22/03	1
Chloromethane	BDL	1.0	ug/l	601MS	05/22/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	05/22/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/22/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/22/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/22/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	05/22/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

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REPORT OF ANALYSIS

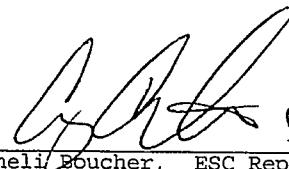
Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : MW-18
Collected By : Tom Davis
Collection Date : 05/20/03 12:25

ESC Sample # : L114649-02
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	05/22/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	05/22/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	05/22/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	05/22/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/22/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/22/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	05/22/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	05/22/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	05/22/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	05/22/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	05/22/03	1
Vinyl chloride	BDL	1.0	ug/l	601MS	05/22/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Note:

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	May 21, 2003	ESC Sample # :	L114649-03
Description :	Teer - HRC Monitoring	Site ID :	
Sample ID :	MW-29	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	05/20/03 13:00		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ppb	8015M	05/29/03	1
Chloride	2600	1000	ug/l	9056	05/21/03	1
Nitrate	BDL	100	ug/l	9056	05/21/03	1
Sulfate	10000	5000	ug/l	9056	05/21/03	1
Alkalinity	280000	10000	ug/l	310.2	05/22/03	1
Free Carbon Dioxide	39000	0.0	ug/l	406B	05/21/03	1
Ethane	BDL	1000	ppb	8015M	05/29/03	1
Ethene	BDL	1000	ppb	8015M	05/29/03	1
Ferrous Iron	570	50.	ug/l	3500Fe-B	05/21/03	1
Sulfide	77.	50.	ug/l	9030B	05/22/03	1
TOC (Total Organic Carbon)	8600	1000	ug/l	9060	05/22/03	1
Iron, Dissolved	110	50.	ug/l	6010B	05/23/03	1
Manganese, Dissolved	1300	10.	ug/l	6010B	05/23/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	05/23/03	1
Bromoform	BDL	1.0	ug/l	601MS	05/23/03	1
Bromomethane	BDL	1.0	ug/l	601MS	05/23/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	05/23/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	05/23/03	1
Chloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	05/23/03	1
Chloroform	BDL	1.0	ug/l	601MS	05/23/03	1
Chloromethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	05/23/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

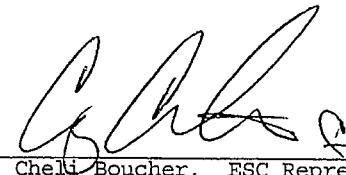
Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : MW-29
Collected By : Tom Davis
Collection Date : 05/20/03 13:00

ESC Sample # : L114649-03
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	05/23/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/23/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/23/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	05/23/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	05/23/03	1
Vinyl chloride	BDL	1.0	ug/l	601MS	05/23/03	1



Chelli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	May 21, 2003	ESC Sample # :	L114649-04
Description :	Teer - HRC Monitoring	Site ID :	
Sample ID :	MW-29C	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	05/20/03 13:30		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1300	1000	ppb	8015M	05/29/03	1
Chloride	13000	1000	ug/l	9056	05/22/03	1
Nitrate	190	100	ug/l	9056	05/22/03	1
Sulfate	BDL	5000	ug/l	9056	05/22/03	1
Alkalinity	520000	50000	ug/l	310.2	05/22/03	5
Free Carbon Dioxide	310000	0.0	ug/l	406B	05/21/03	10
Ethane	BDL	1000	ppb	8015M	05/29/03	1
Ethene	BDL	1000	ppb	8015M	05/29/03	1
Ferrous Iron	6300	1200	ug/l	3500Fe-B	05/21/03	25
Sulfide	BDL	50.	ug/l	9030B	05/22/03	1
TOC (Total Organic Carbon)	170000	1000	ug/l	9060	05/22/03	1
Iron, Dissolved	4700	50.	ug/l	6010B	05/23/03	1
Manganese, Dissolved	8800	10.	ug/l	6010B	05/23/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	05/23/03	1
Bromoform	BDL	1.0	ug/l	601MS	05/23/03	1
Bromomethane	BDL	1.0	ug/l	601MS	05/23/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	05/23/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	05/23/03	1
Chloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	05/23/03	1
Chloroform	BDL	1.0	ug/l	601MS	05/23/03	1
Chloromethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	05/23/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

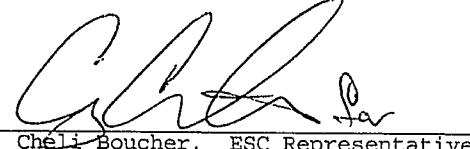
Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : MW-29C
Collected By : Tom Davis
Collection Date : 05/20/03 13:30

ESC Sample # : L114649-04
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	13.	1.0	ug/l	601MS	05/23/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,1-Dichloroethene	18.	1.0	ug/l	601MS	05/23/03	1
cis-1,2-Dichloroethene	10.	1.0	ug/l	601MS	05/23/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	05/23/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/23/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/23/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	05/23/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
1,1,1-Trichloroethane	3.4	1.0	ug/l	601MS	05/23/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
Trichloroethene	2.3	1.0	ug/l	601MS	05/23/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	05/23/03	1
Vinyl chloride	2.5	1.0	ug/l	601MS	05/23/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

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KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	May 21, 2003	ESC Sample # :	L114649-05
Description :	Teer - HRC Monitoring	Site ID :	
Sample ID :	MW-25C	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	05/20/03 14:00		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1500	1000	ppb	8015M	05/29/03	1
Chloride	26000	1000	ug/l	9056	05/22/03	1
Nitrate	BDL	100	ug/l	9056	05/22/03	1
Sulfate	BDL	5000	ug/l	9056	05/22/03	1
Alkalinity	650000	50000	ug/l	310.2	05/22/03	5
Free Carbon Dioxide	280000	0.0	ug/l	406B	05/21/03	10
Ethane	BDL	1000	ppb	8015M	05/29/03	1
Ethene	BDL	1000	ppb	8015M	05/29/03	1
Ferrous Iron	700	50.	ug/l	3500Fe-B	05/21/03	1
Sulfide	BDL	50.	ug/l	9030B	05/22/03	1
TOC (Total Organic Carbon)	87000	1000	ug/l	9060	05/22/03	1
Iron, Dissolved	65.	50.	ug/l	6010B	05/23/03	1
Manganese, Dissolved	9400	10.	ug/l	6010B	05/23/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	05/23/03	1
Bromoform	BDL	1.0	ug/l	601MS	05/23/03	1
Bromomethane	BDL	1.0	ug/l	601MS	05/23/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	05/23/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	05/23/03	1
Chloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	05/23/03	1
Chloroform	BDL	1.0	ug/l	601MS	05/23/03	1
Chloromethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	05/23/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : MW-25C
Collected By : Tom Davis
Collection Date : 05/20/03 14:00

ESC Sample # : L114649-05

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	120	1.0	ug/l	601MS	05/23/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,1-Dichloroethene	50.	1.0	ug/l	601MS	05/23/03	1
cis-1,2-Dichloroethene	30.	1.0	ug/l	601MS	05/23/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	05/23/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/23/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/23/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	05/23/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
1,1,1-Trichloroethane	30.	1.0	ug/l	601MS	05/23/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	05/23/03	1
Vinyl chloride	31.	1.0	ug/l	601MS	05/23/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	May 21, 2003	ESC Sample # :	L114649-06
Description :	Teer - HRC Monitoring	Site ID :	
Sample ID :	MW-25	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	05/20/03 14:20		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1700	1000	ppb	8015M	05/29/03	1
Chloride	20000	1000	ug/l	9056	05/22/03	1
Nitrate	BDL	100	ug/l	9056	05/22/03	1
Sulfate	BDL	5000	ug/l	9056	05/22/03	1
Alkalinity	720000	50000	ug/l	310.2	05/22/03	5
Free Carbon Dioxide	320000	0.0	ug/l	406B	05/21/03	10
Ethane	BDL	1000	ppb	8015M	05/29/03	1
Ethene	BDL	1000	ppb	8015M	05/29/03	1
Ferrous Iron	9100	1200	ug/l	3500Fe-B	05/21/03	25
Sulfide	BDL	50.	ug/l	9030B	05/22/03	1
TOC (Total Organic Carbon)	140000	1000	ug/l	9060	05/22/03	1
Iron, Dissolved	5300	50.	ug/l	6010B	05/23/03	1
Manganese, Dissolved	14000	10.	ug/l	6010B	05/23/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	05/23/03	1
Bromoform	BDL	1.0	ug/l	601MS	05/23/03	1
Bromomethane	BDL	1.0	ug/l	601MS	05/23/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	05/23/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	05/23/03	1
Chloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	05/23/03	1
Chloroform	BDL	1.0	ug/l	601MS	05/23/03	1
Chloromethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	05/23/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	05/23/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Raleigh, NC 27607

March 01, 2004

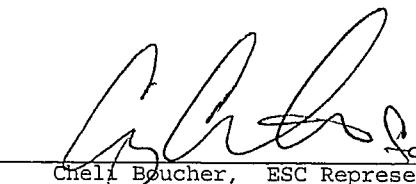
Date Received : May 21, 2003
Description : Teer - HRC Monitoring
Sample ID : MW-25
Collected By : Tom Davis
Collection Date : 05/20/03 14:20

ESC Sample # : L114649-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	110	1.0	ug/l	601MS	05/23/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
1,1-Dichloroethene	52.	1.0	ug/l	601MS	05/23/03	1
cis-1,2-Dichloroethene	34.	1.0	ug/l	601MS	05/23/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	05/23/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/23/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	05/23/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	05/23/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	05/23/03	1
1,1,1-Trichloroethane	29.	1.0	ug/l	601MS	05/23/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	05/23/03	1
Trichloroethene	2.4	1.0	ug/l	601MS	05/23/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	05/23/03	1
Vinyl chloride	16.	1.0	ug/l	601MS	05/23/03	1



Chelli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L114649-03	Chloroethane	J4
	2-Chloroethyl vinyl ether	J4
L114649-04	Chloroethane	J4
	2-Chloroethyl vinyl ether	J4
L114649-05	Chloroethane	J4
	2-Chloroethyl vinyl ether	J4
	1,1-Dichloroethane	E
L114649-06	Chloroethane	J4
	2-Chloroethyl vinyl ether	J4
	1,1-Dichloroethane	E

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
J4	The associated batch QC was outside the established quality control range for accuracy.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

Control Limits

2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	79-126	83-119
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	81-114	82-116
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	65-129	72-126

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
03/01/04 at 13:18:59

TSR Signing Reports: 070
R5 - Desired TAT

Sample: L114649-01 Account: QUANTUM Received: 05/21/03 09:00 Due Date: 05/29/03 00:00 RPT Date: 09/08/03 11:03
Sample: L114649-02 Account: QUANTUM Received: 05/21/03 09:00 Due Date: 05/29/03 00:00 RPT Date: 09/08/03 11:03
Sample: L114649-03 Account: QUANTUM Received: 05/21/03 09:00 Due Date: 05/29/03 00:00 RPT Date: 09/08/03 11:03
Sample: L114649-04 Account: QUANTUM Received: 05/21/03 09:00 Due Date: 05/29/03 00:00 RPT Date: 09/08/03 11:03
Sample: L114649-05 Account: QUANTUM Received: 05/21/03 09:00 Due Date: 05/29/03 00:00 RPT Date: 09/08/03 11:03
Sample: L114649-06 Account: QUANTUM Received: 05/21/03 09:00 Due Date: 05/29/03 00:00 RPT Date: 09/08/03 11:03

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Quantum Environmental Inc.
Mr. Tom Davis
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Quality Assurance Report

Level II

L114649

March 01, 2004

Analyte	Result	Units	Date Analyzed	Laboratory Blank	Batch
1,1,1-Trichloroethane	<.001	mg/l	05/21/03 10:51	WG112106	
1,1,2-Tetrachloroethane	<.001	mg/l	05/21/03 10:51	WG112106	
1,1,2-Trichloroethane	<.001	mg/l	05/21/03 10:51	WG112106	
1,1-Dichloroethane	<.001	mg/l	05/21/03 10:51	WG112106	
1,1-Dichloroethane	<.001	mg/l	05/21/03 10:51	WG112106	
1,2-Dibromoethane	<.001	mg/l	05/21/03 10:51	WG112106	
1,2-Dichlorobenzene	<.001	mg/l	05/21/03 10:51	WG112106	
1,2-Dichloroethane	<.001	mg/l	05/21/03 10:51	WG112106	
1,2-Dichloropropane	<.001	mg/l	05/21/03 10:51	WG112106	
1,3-Dichlorobenzene	<.001	mg/l	05/21/03 10:51	WG112106	
1,4-Dichlorobenzene	<.001	mg/l	05/21/03 10:51	WG112106	
2-Chloroethyl vinyl ether	<.001	mg/l	05/21/03 10:51	WG112106	
Bromodichloromethane	<.001	mg/l	05/21/03 10:51	WG112106	
Bromoform	<.001	mg/l	05/21/03 10:51	WG112106	
Bromomethane	<.001	mg/l	05/21/03 10:51	WG112106	
Carbon Tetrachloride	<.001	mg/l	05/21/03 10:51	WG112106	
Chlorobenzene	<.001	mg/l	05/21/03 10:51	WG112106	
Chlorodibromomethane	<.001	mg/l	05/21/03 10:51	WG112106	
Chloroethane	<.001	mg/l	05/21/03 10:51	WG112106	
Chloroform	<.005	mg/l	05/21/03 10:51	WG112106	
Chloromethane	<.001	mg/l	05/21/03 10:51	WG112106	
cis-1,2-Dichloroethylene	<.001	mg/l	05/21/03 10:51	WG112106	
cis-1,3-Dichloropropene	<.001	mg/l	05/21/03 10:51	WG112106	
Dichlorodifluoromethane	<.001	mg/l	05/21/03 10:51	WG112106	
Methylene chloride	<.005	mg/l	05/21/03 10:51	WG112106	
Tetrachloroethylene	<.001	mg/l	05/21/03 10:51	WG112106	
trans-1,2-Dichloroethylene	<.001	mg/l	05/21/03 10:51	WG112106	
trans-1,3-Dichloropropene	<.001	mg/l	05/21/03 10:51	WG112106	
Trichloroethylene	<.001	mg/l	05/21/03 10:51	WG112106	
Trichlorofluoromethane	<.001	mg/l	05/21/03 10:51	WG112106	
Vinyl chloride	<.001	mg/l	05/21/03 10:51	WG112106	
Chloride	< 1	mg/l	05/21/03 19:09		WG112125
Nitrate	< 1	mg/l	05/21/03 19:09		WG112125
Sulfate	< 5	mg/l	05/21/03 19:09		WG112125
Cron, Dissolved	<.05	mg/l	05/22/03 23:46		WG112131
Manganese, Dissolved	< .01	mg/l	05/22/03 23:46		WG112131
Alkalinity	< 10	mg/l	05/22/03 16:52		WG112248
1,1-Trichloroethane	<.001	mg/l	05/22/03 09:33		WG112349
1,1,2-Tetrachloroethane	<.001	mg/l	05/22/03 09:33		WG112349
1,1,2-Trichloroethane	<.001	mg/l	05/22/03 09:33		WG112349
1,1-Dichloroethane	<.001	mg/l	05/22/03 09:33		WG112349
1,1-Dichloroethene	<.001	mg/l	05/22/03 09:33		WG112349
2-Dibromoethane	<.001	mg/l	05/22/03 09:33		WG112349
1,2-Dichlorobenzene	<.001	mg/l	05/22/03 09:33		WG112349
1,2-Dichloroethane	<.001	mg/l	05/22/03 09:33		WG112349
1,2-Dichloropropane	<.001	mg/l	05/22/03 09:33		WG112349
3-Dichlorobenzene	<.001	mg/l	05/22/03 09:33		WG112349
4-Dichlorobenzene	<.001	mg/l	05/22/03 09:33		WG112349
2-Chloroethyl vinyl ether	<.001	mg/l	05/22/03 09:33		WG112349
Bromodichloromethane	<.001	mg/l	05/22/03 09:33		WG112349
Bromoform	<.001	mg/l	05/22/03 09:33		WG112349
Bromomethane	<.001	mg/l	05/22/03 09:33		WG112349
Carbon Tetrachloride	<.001	mg/l	05/22/03 09:33		WG112349
Chlorobenzene	<.001	mg/l	05/22/03 09:33		WG112349
Chlorodibromomethane	<.001	mg/l	05/22/03 09:33		WG112349
Chloroethane	<.001	mg/l	05/22/03 09:33		WG112349

**ENVIRONMENTAL
SCIENCE CORP.**

12065 Lebanon Rd.
Mt. Juliet, TN 37122
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1-800-767-5859
Fax (615) 758-5859

Tax I.D. 62-0814289

Est. 1970

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Mr. Tom Davis
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Raleigh, NC 27607

Quality Assurance Report

Level II

L114649

March 01, 2004

Chloroform < .005 mg/l 05/22/03 09:33 WG112349

Analyte	Result	Units	Laboratory Blank	Date Analyzed	Batch
Chloromethane	< .001	mg/l	05/22/03 09:33	WG112349	
cis-1,2-Dichloroethene	< .001	mg/l	05/22/03 09:33	WG112349	
cis-1,3-Dichloropropene	< .001	mg/l	05/22/03 09:33	WG112349	
Dichlorodifluoromethane	< .001	mg/l	05/22/03 09:33	WG112349	
Methylene chloride	< .005	mg/l	05/22/03 09:33	WG112349	
Tetrachloroethene	< .001	mg/l	05/22/03 09:33	WG112349	
trans-1,2-Dichloroethene	< .001	mg/l	05/22/03 09:33	WG112349	
trans-1,3-Dichloropropene	< .001	mg/l	05/22/03 09:33	WG112349	
Trichloroethene	< .001	mg/l	05/22/03 09:33	WG112349	
Trichlorofluoromethane	< .001	mg/l	05/22/03 09:33	WG112349	
Vinyl chloride	< .001	mg/l	05/22/03 09:33	WG112349	

Analyte	Units	Laboratory Control	Sample Known Val	Result	% Rec	Limit	Batch
1,1,1-Trichloroethane	mg/l	.02	0.0212	106	107.1	122	WG112106
1,1,2,2-Tetrachloroethane	mg/l	.02	0.0208	104.	78-120		WG112106
1,1,2-Trichloroethane	mg/l	.02	0.0195	97.7	82-117		WG112106
1,1-Dichloroethane	mg/l	.02	0.0203	101	59-135		WG112106
1,1-Dichloroethene	mg/l	.02	0.0222	111.	60-166		WG112106
1,2-Dibromoethane	mg/l	.02	0.0197	98.7	79-121		WG112106
1,2-Dichlorobenzene	mg/l	.05	0.0204	40.9	83-113		WG112106
1,2-Dichloroethane	mg/l	.02	0.0227	114.	81-122		WG112106
1,2-Dichloropropane	mg/l	.02	0.0200	100.	74-125		WG112106
1,3-Dichlorobenzene	mg/l	.05	0.0239	47.9	80-124		WG112106
1,4-Dichlorobenzene	mg/l	.05	0.0239	47.9	80-124		WG112106
-Chloroethyl vinyl ether	mg/l	.1	0.0436	41.8	84-115		WG112106
Bromodichloromethane	mg/l	.02	0.0219	110	76-117		WG112106
Bromoform	mg/l	.02	0.0195	97.3	72-125		WG112106
Bromomethane	mg/l	.02	0.0249	124.	25-170		WG112106
Carbon Tetrachloride	mg/l	.02	0.0209	105	65-127		WG112106
Chlorobenzene	mg/l	.02	0.0202	101.	79-117		WG112106
Chlorodibromomethane	mg/l	.02	0.0194	96.9	76-115		WG112106
Chloroethane	mg/l	.02	0.0149	74.7	87-130		WG112106
Chloroform	mg/l	.02	0.0217	109.	70-119		WG112106
Chloromethane	mg/l	.02	0.0139	69.6	39-109		WG112106
cis-1,2-Dichloroethene	mg/l	.02	0.0197	98.5	72-128		WG112106
cis-1,3-Dichloropropene	mg/l	.02	0.0226	113.	86-137		WG112106
Dichlorodifluoromethane	mg/l	.02	0.0120	60.2	14-133		WG112106
Methylene chloride	mg/l	.02	0.0209	104.	60-127		WG112106
Tetrachloroethene	mg/l	.02	0.0209	104.	71-132		WG112106
trans-1,2-Dichloroethene	mg/l	.02	0.0208	104.	65-141		WG112106
trans-1,3-Dichloropropene	mg/l	.02	0.0225	113.	82-132		WG112106
Trichloroethene	mg/l	.02	0.0213	107.	81-129		WG112106
Trichlorofluoromethane	mg/l	.02	0.0164	82.1	46-94		WG112106
Vinyl chloride	mg/l	.02	0.0154	76.9	40-95		WG112106
Chloride	mg/l	20	20.0	100.	90-110		WG112125
Nitrate	mg/l	4	4.12	103.	90-110		WG112125
Sulfate	mg/l	20	19.3	96.4	85-115		WG112125
Iron, Dissolved	mg/l	1.13	1.05	92.9	85-115		WG112131
Manganese, Dissolved	mg/l	1.13	1.13	100.	85-115		WG112131
Alkalinity	mg/l	65	67.8	104.	85-115		WG112248
1,1,1-Trichloroethane	mg/l	.02	0.0211	105.	71-122		WG112349
1,1,2,2-Tetrachloroethane	mg/l	.02	0.0208	104.	78-120		WG112349
1,1,2-Trichloroethane	mg/l	.02	0.0204	102.	82-117		WG112349

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Quality Assurance Report

Level II

L114649

March 01, 2004

Analyte	Units	Laboratory Control Sample	Known Val	Result	% Rec	Limit	Batch
1,1-Dichloroethane	mg/l	.02	0.0222	111.	59-135	WG112349	
1,1-Dichloroethylene	mg/l	.02	0.0267	133.	60-166	WG112349	
1,2-Dibromoethane	mg/l	.02	0.0215	107.	79-121	WG112349	
1,2-Dichlorobenzene	mg/l	.05	0.0219	43.7	83-113	WG112349	
1,2-Dichloroethane	mg/l	.02	0.0198	99.1	81-122	WG112349	
1,2-Dichloropropane	mg/l	.02	0.0199	99.5	74-125	WG112349	
1,3-Dichlorobenzene	mg/l	.05	0.0227	45.4	80-124	WG112349	
1,4-Dichlorobenzene	mg/l	.05	0.0224	44.7	84-115	WG112349	
2-Chloroethyl vinyl ether	mg/l	.1	0.00	0.00	15-161	WG112349	
Bromodichloromethane	mg/l	.02	0.0193	96.7	76-117	WG112349	
Bromoform	mg/l	.02	0.0213	106.	72-125	WG112349	
Bromomethane	mg/l	.02	0.0195	97.7	25-170	WG112349	
Carbon Tetrachloride	mg/l	.02	0.0215	107.	65-127	WG112349	
Chlorobenzene	mg/l	.02	0.0219	110.	79-117	WG112349	
Chlorodibromomethane	mg/l	.02	0.0207	103.	76-115	WG112349	
Chloroethane	mg/l	.02	0.0514	257.	37-130	WG112349	
Chloroform	mg/l	.02	0.0194	97.0	70-119	WG112349	
Chloromethane	mg/l	.02	0.0169	84.3	39-109	WG112349	
cis-1,2-Dichloroethene	mg/l	.02	0.0215	108.	72-128	WG112349	
cis-1,3-Dichloropropene	mg/l	.02	0.0221	111.	86-137	WG112349	
Dichlorodifluoromethane	mg/l	.02	0.0186	93.1	14-133	WG112349	
Methylene chloride	mg/l	.02	0.0205	103.	60-127	WG112349	
Tetrachloroethylene	mg/l	.02	0.0231	116.	71-132	WG112349	
trans-1,2-Dichloroethene	mg/l	.02	0.0230	115.	65-141	WG112349	
trans-1,3-Dichloropropene	mg/l	.02	0.0206	103.	82-132	WG112349	
Trichloroethene	mg/l	.02	0.0218	109.	81-129	WG112349	
Trichlorofluoromethane	mg/l	.02	0.0197	98.3	46-94	WG112349	
Vinyl chloride	mg/l	.02	0.0189	94.3	40-95	WG112349	

Batch number /Run number / Sample number cross reference

WG112128: R159827: L114649-01 02 03 04 05 06
 WG112225: R159873: L114649-01 02 03 04 05 06
 WG112106: R159878: L114649-01 02
 WG112125: R159970: L114649-01 02 03 04 05 06
 WG112192: R159978: L114649-01 02 03 04 05 06
 WG112248: R160071: L114649-01 02 03 04 05 06
 WG112265: R160079: L114649-01 02 03 04 05 06
 WG112131: R160110: L114649-01 02 03 04 05 06
 WG112349: R160124: L114649-03 04 05 06
 WG113088: R160714: L114649-01 02 03 04 05 06

* See Attachment B of standard report for list of qualifiers.
 * Calculations are performed prior to rounding of reported values


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Quality Assurance Report
Level II
L114649

March 01, 2004

ESC Level 2 Data Package

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Quantum Environmental Inc.		Alternate billing information:		Analysis/Container/Preservative		Chain of Custody	
6001 Chapel Hill Road. Suite 108 Raleigh, NC 27607						Page <u>1</u> of <u>2</u>	
Report to: Mr. Tom Davis		Email: tdavis@quantumcos.com				Prepared by:	
Project Description: <i>Toen - HRC Monitoring</i>		City/State Collected <i>NC</i>				 ENVIRONMENTAL SCIENCE CORP.	
Phone: (919) 852-3595 FAX: (919) 852-1997		Client Project #: <i>0813-94-012</i>		Lab Project # OUANTUM-HRCINJECTI		12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859	
Collected by (print): <i>Tom Davis</i>		Site/Facility ID#: <i>Y</i>		P.O. #:			
Collected by (signature): <i>JHD</i>		Rush? (Lab MUST Be Notified.) Same Day 200% Next Day 100% Two Day 50%		Date Results Needed Email? No <input checked="" type="checkbox"/> Yes FAX? No <input type="checkbox"/> Yes		No. of Cntrs	CoCode: OUANTUM (lab use only) Template/Preflogin: T17810 P83232 Cooler #: 5770S Shipped Via: FedEX Ground
Packed on Ice N							
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	METHANE 40mLamb-NoPres NO3, CO2, SO4, CL 500mLHDPE-NoPres SULFIDE 500mLHDPE-NaOH+ZnAc TOC 250mLamb-Septa-HCl	Remarks/Contaminant Sample # (lab only)
RW-5	G	GW		9/20/03	1200	13 X X X X X X X X X X	L1144049-1
MW-18	G	GW			1225	13 X X X X X X X X X X	22
MW-29	I	GW			1300	13 X X X X X X X X X X	23
MW-298	I	GW			1330	13 X X X X X X X X X X	24
MW-258	I	GW			1400	13 X X X X X X X X X X	25
MW-25	I	GW			1420	13 X X X X X X X X X X	26

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

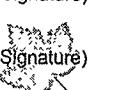
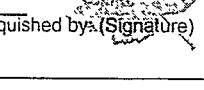
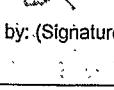
Remarks: Please note:

Ferrous Iron and CO2 have 24 hr hold times.

Nitrate has 48 hr hold time.

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature) 	Date: <i>5/21/03</i>	Time: <i>1630</i>	Received by: (Signature) 	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: <i>ck</i> (lab use only)
Relinquished by: (Signature) 	Date: _____	Time: _____	Received by: (Signature) 	Temp: <i>34.2</i> Bottles Received: <i>78</i>	
Relinquished by: (Signature) 	Date: _____	Time: _____	Received for lab by: (Signature) 	Date: <i>5/21/03</i> Time: <i>9:00</i>	pH Checked: <i><2 >12</i> NCF: _____

Quantum Environmental Inc. 6001 Chapel Hill Road, Suite 108 Raleigh, NC 27607		Alternate billing information:		Analysis/Container/Preservative		Chain of Custody Page 2 of 2	
Report to: Mr. Tom Davis		Email: tdavis@quantumcos.com				Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859	
Project Description: <i>Per - HRC Monitoring</i>		City/State Collected <i>NC</i>					
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project #: <i>0013-94-012</i>	Lab Project # OUANTUM-HRCINJECTI					
Collected by (print): <i>Tom Davis</i>	Site/Facility ID#:	P.O. #:					
Collected by (signature): <i>Tom Davis</i>	Rush? (Lab MUST Be Notified) <input type="checkbox"/> Same Day 200% <input type="checkbox"/> Next Day 100% <input type="checkbox"/> Two Day 50%	Date Results Needed Email? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes FAX? <input type="checkbox"/> No <input type="checkbox"/> Yes	No. of Cntrs	V601 40mlAmb-HCl			
Packed on Ice N <i>Y</i>							
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Remarks/Contaminant	Sample # (lab only)
RW-5	G	GW		<i>5/28/03</i>	<i>1200</i>	13	<i>X</i>
MW-18		GW			<i>1225</i>	13	<i>X</i>
MW-29		GW			<i>1300</i>	13	<i>X</i>
MW-29C		GW			<i>1330</i>	13	<i>X</i>
MW-25L		GW			<i>1400</i>	13	<i>X</i>
MW-25	—	GW			<i>1420</i>	13	<i>X</i>

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

Remarks: Please note:

Ferrous Iron and CO2 have 24 hr hold times.

Nitrate has 48 hr hold time.

pH _____ Temp _____

Flow _____ Other _____

Relinquished by: (Signature) <i>TD</i>	Date: <i>5/28/03</i>	Time: <i>1630</i>	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: <i>d</i>	(lab use only)
Relinquished by: (Signature) <i>TD</i>	Date: _____	Time: _____	Received by: (Signature)	Temp: <i>34.0</i>	Bottles Received: <i>78</i>	
Relinquished by: (Signature) <i>TD</i>	Date: _____	Time: _____	Received for lab by: (Signature)	Date: <i>5/21/03</i>	Time: <i>9:00</i>	pH Checked: <i><2>12</i> NCF: _____

Appendix D

Appendix D

July 2003

**Laboratory Analytical Results
and
Chain of Custody**



ENVIRONMENTAL
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REPORT OF ANALYSIS

August 13, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : July 25, 2003 ESC Sample # : L121930-01
Description : Teer-HRC Monitoring

Sample ID : MW-25 Site ID :

Collected By : Tom Davis Project # : 0013-94-012
Collection Date : 07/24/03 14:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	170	3.4	mg/l		08/01/03	1
Butyric Acid	BDL	12.	mg/l		08/01/03	1
Lactic Acid	BDL	1.2	mg/l		08/01/03	1
Propionic Acid	100	6.1	mg/l		08/01/03	1
Pyruvic Acid	BDL	0.44	mg/l		08/01/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A21A - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L121930-01 (ORG.ACIDS) - Subcontracted to Data Analysis Technologies, Inc.



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

August 13, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : July 25, 2003 ESC Sample # : L121930-02
Description : Teer-HRC Monitoring Site ID :
Sample ID : MW-25I Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 07/24/03 13:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	66.	3.4	mg/l		08/01/03	1
Butyric Acid	36.	12.	mg/l		08/01/03	1
Lactic Acid	BDL	1.2	mg/l		08/01/03	1
Propionic Acid	34.	6.1	mg/l		08/01/03	1
Pyruvic Acid	BDL	0.44	mg/l		08/01/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

August 13, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : July 25, 2003 ESC Sample # : L121930-03
Description : Teer-HRC Monitoring Site ID :
Sample ID : MW-29 Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 07/24/03 13:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		08/01/03	1
Butyric Acid	BDL	12.	mg/l		08/01/03	1
Lactic Acid	BDL	1.2	mg/l		08/01/03	1
Propionic Acid	BDL	6.1	mg/l		08/01/03	1
Pyruvic Acid	BDL	0.44	mg/l		08/01/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

August 13, 2003

Date Received : July 25, 2003
Description : Teer-HRC Monitoring
Sample ID : MW-29I
Collected By : Tom Davis
Collection Date : 07/24/03 14:00

ESC Sample # : L121930-04

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	97.	3.4	mg/l		08/01/03	1
Butyric Acid	110	12.	mg/l		08/01/03	1
Lactic Acid	120	1.2	mg/l		08/01/03	1
Propionic Acid	87.	6.1	mg/l		08/01/03	1
Pyruvic Acid	BDL	0.44	mg/l		08/01/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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L121930-04 (ORG-ACIDS) - Subcontracted to Data Analysis Technologies, Inc.


Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

August 13, 2003

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : July 25, 2003
Description : Teer-HRC Monitoring
Sample ID : MW-18
Collected By : Tom Davis
Collection Date : 07/24/03 11:45

ESC Sample # : L121930-05

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	3.4	mg/l		08/01/03	1
Butyric Acid	BDL	12.	mg/l		08/01/03	1
Lactic Acid	BDL	1.2	mg/l		08/01/03	1
Propionic Acid	BDL	6.1	mg/l		08/01/03	1
Pyruvic Acid	BDL	0.44	mg/l		08/01/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L121930-05 (ORG-ACIDS) - Subcontracted to Data Analysis Technologies, Inc.



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

August 13, 2003

Date Received : July 25, 2003
Description : Teer-HRC Monitoring
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 07/24/03 12:30

ESC Sample # : L121930-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	42.	3.4	mg/l		08/01/03	1
Butyric Acid	BDL	12.	mg/l		08/01/03	1
Lactic Acid	BDL	1.2	mg/l		08/01/03	1
Propionic Acid	BDL	6.1	mg/l		08/01/03	1
Pyruvic Acid	BDL	0.44	mg/l		08/01/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Cheli Boucher
Cheli Boucher, ESC Representative

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L121930-06 (ORG-ACIDS) - Subcontracted to Data Analysis Technologies, Inc.

Quantum Environmental Inc.

6001 Chapel Hill Road. Suite 108
Raleigh, NC 27607

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Report to:
Mr. Tom Davis

Email:
tdavis@quantumcos.com

Project Description:
Teer - HRC Monitoring

City/State
Collected

NC

Phone: (919) 852-3595
FAX: (919) 852-1997

Client Project #:
0013-94-012

Lab Project #
OUANTUM-HRCINJECTI

Collected by (print):

Tom Davis

Site/Facility ID#:

P.O.#:

Collected by (signature):

[Signature]

Rush?

(Lab MUST Be Notified)

Same Day 200%
 Next Day 100%
 Two Day 50%

Date Results Needed

Email? No Yes
FAX? No Yes

SUB-ORG ACIDS 40mlCr-NoPres

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time							Remarks/Contaminant	Sample # (lab only)
MW-25	G	GW		7/24/03	1430	2	X						L121930-01
MW-25i		GW			1300	2	X						02
MW-29		GW			1330	2	X						03
MW-29i		GW			1400	2	X						04
MW-18		GW			1145	2	X						05
RW-5		GW			1230	2	X						06

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature) <i>[Signature]</i>	Date: <i>7/24/03</i>	Time: <i>1545</i>	Received by: (Signature) <i>[Signature]</i>	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) <i>OK</i>
Relinquished by: (Signature) <i>[Signature]</i>	Date: _____	Time: _____	Received by: (Signature) <i>[Signature]</i>	Temp: <i>23</i> Bottles Received: <i>12</i>	
Relinquished by: (Signature) <i>[Signature]</i>	Date: _____	Time: _____	Received for lab by: (Signature) <i>[Signature]</i>	Date: <i>7/25/03</i> Time: <i>9:00</i>	pH Checked: _____ NCF: _____



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	July 25, 2003	ESC Sample # :	L121922-01
Description :	Terr - HRC Monitoring	Site ID :	
Sample ID :	MW-25	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	07/24/03 14:30		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1400	1000	ug/l	8015M	07/29/03	1
Chloride	53000	1000	ug/l	9056	07/25/03	1
Nitrate	BDL	100	ug/l	9056	07/25/03	1
Sulfate	BDL	5000	ug/l	9056	07/25/03	1
Alkalinity	880000	50000	ug/l	310.2	07/29/03	5
Free Carbon Dioxide	410000	100000	ug/l	406B	07/25/03	10
Ethane	BDL	1000	ug/l	8015M	07/29/03	1
Ethene	BDL	1000	ug/l	8015M	07/29/03	1
Ferrous Iron	20000	1200	ug/l	3500Fe-B	07/25/03	25
Sulfide	BDL	50.	ug/l	9030B	07/28/03	1
TOC (Total Organic Carbon)	130000	1000	ug/l	9060	07/30/03	1
Iron, Dissolved	9400	50.	ug/l	6010B	07/25/03	1
Manganese, Dissolved	18000	10.	ug/l	6010B	07/25/03	1
Volatile Organics						
Bromodichloromethane	BDL	5.0	ug/l	601MS	07/28/03	5
Bromoform	BDL	5.0	ug/l	601MS	07/28/03	5
Bromomethane	BDL	5.0	ug/l	601MS	07/28/03	5
Carbon Tetrachloride	BDL	5.0	ug/l	601MS	07/28/03	5
Chlorobenzene	BDL	5.0	ug/l	601MS	07/28/03	5
Chlorodibromomethane	BDL	5.0	ug/l	601MS	07/28/03	5
Chloroethane	10.	5.0	ug/l	601MS	07/28/03	5
2-Chloroethyl vinyl ether	BDL	250	ug/l	601MS	07/28/03	5
Chloroform	BDL	5.0	ug/l	601MS	07/28/03	5
Chloromethane	BDL	5.0	ug/l	601MS	07/28/03	5
1,2-Dibromoethane	BDL	5.0	ug/l	601MS	07/28/03	5
1,2-Dichlorobenzene	BDL	5.0	ug/l	601MS	07/28/03	5
1,3-Dichlorobenzene	BDL	5.0	ug/l	601MS	07/28/03	5
1,4-Dichlorobenzene	BDL	5.0	ug/l	601MS	07/28/03	5
Dichlorodifluoromethane	BDL	5.0	ug/l	601MS	07/28/03	5

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

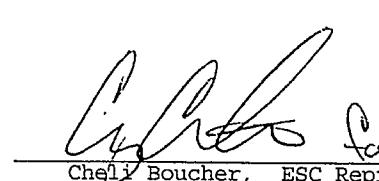
Date Received : July 25, 2003
Description : Terr - HRC Monitoring
Sample ID : MW-25
Collected By : Tom Davis
Collection Date : 07/24/03 14:30

ESC Sample # : L121922-01

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	170	5.0	ug/l	601MS	07/28/03	5
1,2-Dichloroethane	BDL	5.0	ug/l	601MS	07/28/03	5
1,1-Dichloroethene	6.4	5.0	ug/l	601MS	07/28/03	5
cis-1,2-Dichloroethene	BDL	5.0	ug/l	601MS	07/28/03	5
trans-1,2-Dichloroethene	BDL	5.0	ug/l	601MS	07/28/03	5
1,2-Dichloropropane	BDL	5.0	ug/l	601MS	07/28/03	5
cis-1,3-Dichloropropene	BDL	5.0	ug/l	601MS	07/28/03	5
trans-1,3-Dichloropropene	BDL	5.0	ug/l	601MS	07/28/03	5
Methylene chloride	BDL	25.	ug/l	601MS	07/28/03	5
1,1,2,2-Tetrachloroethane	BDL	5.0	ug/l	601MS	07/28/03	5
Tetrachloroethene	BDL	5.0	ug/l	601MS	07/28/03	5
1,1,1-Trichloroethane	15.	5.0	ug/l	601MS	07/28/03	5
1,1,2-Trichloroethane	BDL	5.0	ug/l	601MS	07/28/03	5
Trichloroethene	BDL	5.0	ug/l	601MS	07/28/03	5
Trichlorofluoromethane	BDL	5.0	ug/l	601MS	07/28/03	5
Vinyl chloride	82.	5.0	ug/l	601MS	07/28/03	5



Chelei Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375,DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	July 25, 2003	ESC Sample # :	L121922-02
Description :	Terr - HRC Monitoring	Site ID :	
Sample ID :	MW-25I	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	07/24/03 13:00		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	07/29/03	1
Chloride	20000	1000	ug/l	9056	07/25/03	1
Nitrate	BDL	100	ug/l	9056	07/25/03	1
Sulfate	BDL	5000	ug/l	9056	07/25/03	1
Alkalinity	670000	50000	ug/l	310.2	07/29/03	5
Free Carbon Dioxide	280000	100000	ug/l	406B	07/25/03	10
Ethane	BDL	1000	ug/l	8015M	07/29/03	1
Ethene	BDL	1000	ug/l	8015M	07/29/03	1
Ferrous Iron	590	50.	ug/l	3500Fe-B	07/25/03	1
Sulfide	BDL	50.	ug/l	9030B	07/28/03	1
TOC (Total Organic Carbon)	48000	1000	ug/l	9060	07/30/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	07/26/03	1
Manganese, Dissolved	12000	10.	ug/l	6010B	07/26/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
Bromoform	BDL	1.0	ug/l	601MS	07/26/03	1
Bromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Chloroethane	12.	1.0	ug/l	601MS	07/26/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	07/26/03	1
Chloroform	BDL	1.0	ug/l	601MS	07/26/03	1
Chloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	07/26/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : July 25, 2003
Description : Terr - HRC Monitoring
Sample ID : MW-25I
Collected By : Tom Davis
Collection Date : 07/24/03 13:00

ESC Sample # : L121922-02

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	170	1.0	ug/l	601MS	07/26/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,1-Dichloroethene	3.9	1.0	ug/l	601MS	07/26/03	1
cis-1,2-Dichloroethene	1.2	1.0	ug/l	601MS	07/26/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	07/26/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	07/26/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	07/26/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	07/26/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
1,1,1-Trichloroethane	10.	1.0	ug/l	601MS	07/26/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	07/26/03	1
Vinyl chloride	89.	1.0	ug/l	601MS	07/26/03	1

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : July 25, 2003
Description : Terr - HRC Monitoring
Sample ID : MW-29
Collected By : Tom Davis
Collection Date : 07/24/03 13:30

ESC Sample # : L121922-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ug/l	8015M	07/29/03	1
Chloride	BDL	1000	ug/l	9056	07/25/03	1
Nitrate	BDL	100	ug/l	9056	07/25/03	1
Sulfate	BDL	5000	ug/l	9056	07/25/03	1
Alkalinity	260000	10000	ug/l	310.2	07/29/03	1
Free Carbon Dioxide	24000	10000	ug/l	406B	07/25/03	1
Ethane	BDL	1000	ug/l	8015M	07/29/03	1
Ethene	BDL	1000	ug/l	8015M	07/29/03	1
Ferrous Iron	2800	500	ug/l	3500Fe-B	07/25/03	10
Sulfide	BDL	50.	ug/l	9030B	07/28/03	1
TOC (Total Organic Carbon)	7100	1000	ug/l	9060	07/30/03	1
Iron, Dissolved	190	50.	ug/l	6010B	07/25/03	1
Manganese, Dissolved	690	10.	ug/l	6010B	07/25/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
Bromoform	BDL	1.0	ug/l	601MS	07/26/03	1
Bromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Chloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	07/26/03	1
Chloroform	BDL	1.0	ug/l	601MS	07/26/03	1
Chloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	07/26/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : July 25, 2003
Description : Terr - HRC Monitoring
Sample ID : MW-29
Collected By : Tom Davis
Collection Date : 07/24/03 13:30

ESC Sample # : L121922-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	07/26/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	07/26/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	07/26/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	07/26/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	07/26/03	1
Vinyl chloride	BDL	1.0	ug/l	601MS	07/26/03	1

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : July 25, 2003 ESC Sample # : L121922-04
Description : Terr - HRC Monitoring Site ID :
Sample ID : MW-29I Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 07/24/03 14:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	3000	1000	ug/l	8015M	07/29/03	1
Chloride	16000	1000	ug/l	9056	07/25/03	1
Nitrate	320	100	ug/l	9056	07/25/03	1
Sulfate	BDL	5000	ug/l	9056	07/25/03	1
Alkalinity	680000	50000	ug/l	310.2	07/29/03	5
Free Carbon Dioxide	570000	100000	ug/l	406B	07/25/03	10
Ethane	BDL	1000	ug/l	8015M	07/29/03	1
Ethene	BDL	1000	ug/l	8015M	07/29/03	1
Ferrous Iron	12000	1200	ug/l	3500Fe-B	07/25/03	25
Sulfide	BDL	50.	ug/l	9030B	07/28/03	1
TOC (Total Organic Carbon)	180000	1000	ug/l	9060	07/30/03	1
Iron, Dissolved	8700	50.	ug/l	6010B	07/25/03	1
Manganese, Dissolved	13000	10.	ug/l	6010B	07/25/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
Bromoform	BDL	1.0	ug/l	601MS	07/26/03	1
Bromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Chloroethane	3.9	1.0	ug/l	601MS	07/26/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	07/26/03	1
Chloroform	BDL	1.0	ug/l	601MS	07/26/03	1
Chloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	07/26/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : July 25, 2003 ESC Sample # : L121922-04
Description : Terr - HRC Monitoring Site ID :
Sample ID : MW-29I Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 07/24/03 14:00

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	50.	1.0	ug/l	601MS	07/26/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,1-Dichloroethene	10.	1.0	ug/l	601MS	07/26/03	1
cis-1,2-Dichloroethene	4.1	1.0	ug/l	601MS	07/26/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	07/26/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	07/26/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	07/26/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	07/26/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
1,1,1-Trichloroethane	6.2	1.0	ug/l	601MS	07/26/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
Trichloroethene	2.4	1.0	ug/l	601MS	07/26/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	07/26/03	1
Vinyl chloride	41.	1.0	ug/l	601MS	07/26/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233
Note:

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Chelli Boucher, ESC Representative



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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : July 25, 2003
Description : Terr - HRC Monitoring
Sample ID : MW-18
Collected By : Tom Davis
Collection Date : 07/24/03 11:45

ESC Sample # : L121922-05
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	2400	1000	ug/l	8015M	07/29/03	1
Chloride	3000	1000	ug/l	9056	07/25/03	1
Nitrate	BDL	100	ug/l	9056	07/25/03	1
Sulfate	BDL	5000	ug/l	9056	07/25/03	1
Alkalinity	360000	20000	ug/l	310.2	07/29/03	2
Free Carbon Dioxide	180000	20000	ug/l	406B	07/25/03	2
Ethane	BDL	1000	ug/l	8015M	07/29/03	1
Ethene	BDL	1000	ug/l	8015M	07/29/03	1
Ferrous Iron	5100	500	ug/l	3500Fe-B	07/25/03	10
Sulfide	BDL	50.	ug/l	9030B	07/28/03	1
TOC (Total Organic Carbon)	7800	1000	ug/l	9060	07/30/03	1
Iron, Dissolved	1900	50.	ug/l	6010B	07/25/03	1
Manganese, Dissolved	1400	10.	ug/l	6010B	07/25/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
Bromoform	BDL	1.0	ug/l	601MS	07/26/03	1
Bromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Chloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	07/26/03	1
Chloroform	BDL	1.0	ug/l	601MS	07/26/03	1
Chloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	07/26/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : July 25, 2003 ESC Sample # : L121922-06
Description : Terr - HRC Monitoring Site ID :
Sample ID : RW-5 Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 07/24/03 12:30

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000 .	ug/l	8015M	07/29/03	1
Chloride	40000	1000	ug/l	9056	07/25/03	1
Nitrate	BDL	100	ug/l	9056	07/25/03	1
Sulfate	BDL	5000	ug/l	9056	07/25/03	1
Alkalinity	520000	50000	ug/l	310.2	07/29/03	5
Free Carbon Dioxide	160000	50000	ug/l	406B	07/25/03	5
Ethane	BDL	1000	ug/l	8015M	07/29/03	1
Ethene	BDL	1000	ug/l	8015M	07/29/03	1
Ferrous Iron	6000	500	ug/l	3500Fe-B	07/25/03	10
Sulfide	BDL	50.	ug/l	9030B	07/28/03	1
TOC (Total Organic Carbon)	32000	1000	ug/l	9060	07/30/03	1
Iron, Dissolved	300	50.	ug/l	6010B	07/26/03	1
Manganese, Dissolved	12000	10.	ug/l	6010B	07/26/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
Bromoform	BDL	1.0	ug/l	601MS	07/26/03	1
Bromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	07/26/03	1
Chloroethane	2.6	1.0	ug/l	601MS	07/26/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	07/26/03	1
Chloroform	BDL	1.0	ug/l	601MS	07/26/03	1
Chloromethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	07/26/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	07/26/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
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Raleigh, NC 27607

March 01, 2004

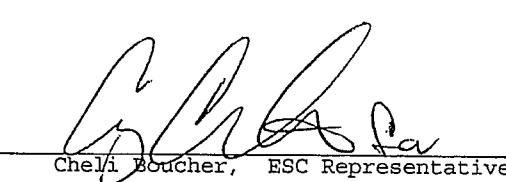
Date Received : July 25, 2003
Description : Terr - HRC Monitoring
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 07/24/03 12:30

ESC Sample # : L121922-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	54.	1.0	ug/l	601MS	07/26/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
1,1-Dichloroethene	2.9	1.0	ug/l	601MS	07/26/03	1
cis-1,2-Dichloroethene	1.5	1.0	ug/l	601MS	07/26/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	07/26/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	07/26/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	07/26/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	07/26/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
1,1,1-Trichloroethane	5.7	1.0	ug/l	601MS	07/26/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	07/26/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	07/26/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	07/26/03	1
Vinyl chloride	22.	1.0	ug/l	601MS	07/26/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
J4	The associated batch QC was outside the established quality control range for accuracy.
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

Control Limits

2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	79-126	83-119
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	81-114	82-116
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	65-129	72-126

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

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Fax (615) 758-5859
Tax I.D. 62-0814289

Est. 1970

Quantum Environmental Inc.
Mr. Tom Davis
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

**Quality Assurance Report
Level II**

March 01, 2004

L121922

Analyte	Result	Units	Laboratory Blank	Date Analyzed	Batch
Ferrous Iron	<.05	mg/l	07/25/03 11:30	WG119585	
Chloride	< 1	mg/l	07/25/03 09:43	WG119588	
Nitrate	<.1	mg/l	07/25/03 09:43	WG119588	
Sulfate	< 5	mg/l	07/25/03 09:43	WG119588	
Iron, Dissolved	<.05	mg/l	07/25/03 23:08	WG119594	
Manganese, Dissolved	< .01	mg/l	07/25/03 23:08	WG119594	
Free Carbon Dioxide	<10	mg/l	07/25/03 15:15	WG119627	
1,1,1-Trichloroethane	< .001	mg/l	07/26/03 00:03	WG119652	
1,1,2,2-Tetrachloroethane	< .001	mg/l	07/26/03 00:03	WG119652	
1,1,2-Trichloroethane	< .001	mg/l	07/26/03 00:03	WG119652	
1,1-Dichloroethane	< .001	mg/l	07/26/03 00:03	WG119652	
1,1-Dichloroethene	< .001	mg/l	07/26/03 00:03	WG119652	
1,2-Dibromoethane	< .001	mg/l	07/26/03 00:03	WG119652	
1,2-Dichlorobenzene	< .001	mg/l	07/26/03 00:03	WG119652	
1,2-Dichloroethane	< .001	mg/l	07/26/03 00:03	WG119652	
1,2-Dichloropropane	< .001	mg/l	07/26/03 00:03	WG119652	
1,3-Dichlorobenzene	< .001	mg/l	07/26/03 00:03	WG119652	
1,4-Dichlorobenzene	< .001	mg/l	07/26/03 00:03	WG119652	
2-Chloroethyl vinyl ether	< .001	mg/l	07/26/03 00:03	WG119652	
Bromodichloromethane	< .001	mg/l	07/26/03 00:03	WG119652	
Bromoform	< .001	mg/l	07/26/03 00:03	WG119652	
Bromomethane	< .001	mg/l	07/26/03 00:03	WG119652	
Carbon Tetrachloride	< .001	mg/l	07/26/03 00:03	WG119652	
Chlorobenzene	< .001	mg/l	07/26/03 00:03	WG119652	
Chlorodibromomethane	< .001	mg/l	07/26/03 00:03	WG119652	
Chloroethane	< .001	mg/l	07/26/03 00:03	WG119652	
Chloroform	< .005	mg/l	07/26/03 00:03	WG119652	
Chloromethane	< .001	mg/l	07/26/03 00:03	WG119652	
cis-1,2-Dichloroethene	< .001	mg/l	07/26/03 00:03	WG119652	
cis-1,3-Dichloropropene	< .001	mg/l	07/26/03 00:03	WG119652	
Dichlorodifluoromethane	< .001	mg/l	07/26/03 00:03	WG119652	
Methylene chloride	< .005	mg/l	07/26/03 00:03	WG119652	
Tetrachloroethene	< .001	mg/l	07/26/03 00:03	WG119652	
trans-1,2-Dichloroethene	< .001	mg/l	07/26/03 00:03	WG119652	
trans-1,3-Dichloropropene	< .001	mg/l	07/26/03 00:03	WG119652	
Trichloroethene	< .001	mg/l	07/26/03 00:03	WG119652	
Trichlorofluoromethane	< .001	mg/l	07/26/03 00:03	WG119652	
Vinyl chloride	< .001	mg/l	07/26/03 00:03	WG119652	
1,1,1-Trichloroethane	< .001	mg/l	07/28/03 08:59	WG119765	
1,1,2,2-Tetrachloroethane	< .001	mg/l	07/28/03 08:59	WG119765	
1,1,2-Trichloroethane	< .001	mg/l	07/28/03 08:59	WG119765	
1,1-Dichloroethane	< .001	mg/l	07/28/03 08:59	WG119765	
1,1-Dichloroethene	< .001	mg/l	07/28/03 08:59	WG119765	
1,2-Dibromoethane	< .001	mg/l	07/28/03 08:59	WG119765	
1,2-Dichlorobenzene	< .001	mg/l	07/28/03 08:59	WG119765	
1,2-Dichloroethane	< .001	mg/l	07/28/03 08:59	WG119765	
1,2-Dichloropropane	< .001	mg/l	07/28/03 08:59	WG119765	
1,3-Dichlorobenzene	< .001	mg/l	07/28/03 08:59	WG119765	
1,4-Dichlorobenzene	< .001	mg/l	07/28/03 08:59	WG119765	
2-Chloroethyl vinyl ether	< .001	mg/l	07/28/03 08:59	WG119765	
Bromodichloromethane	< .001	mg/l	07/28/03 08:59	WG119765	
Bromoform	< .001	mg/l	07/28/03 08:59	WG119765	
Bromomethane	< .001	mg/l	07/28/03 08:59	WG119765	
Carbon Tetrachloride	< .001	mg/l	07/28/03 08:59	WG119765	
Chlorobenzene	< .001	mg/l	07/28/03 08:59	WG119765	

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Quality Assurance Report
Level II

L121922

March 01, 2004

Chlorodibromomethane <.001 mg/l 07/28/03 08:59 WG119765

Analyte	Result	Laboratory Blank	Units	Date Analyzed	Batch
Chloroethane	<.001		mg/l	07/28/03 08:59	WG119765
Chloroform	<.005		mg/l	07/28/03 08:59	WG119765
Chloromethane	<.001		mg/l	07/28/03 08:59	WG119765
cis-1,2-Dichloroethene	<.001		mg/l	07/28/03 08:59	WG119765
cis-1,3-Dichloropropene	<.001		mg/l	07/28/03 08:59	WG119765
Dichlorodifluoromethane	<.001		mg/l	07/28/03 08:59	WG119765
Ethylene chloride	<.005		mg/l	07/28/03 08:59	WG119765
Tetrachloroethylene	<.001		mg/l	07/28/03 08:59	WG119765
trans-1,2-Dichloroethene	<.001		mg/l	07/28/03 08:59	WG119765
trans-1,3-Dichloropropene	<.001		mg/l	07/28/03 08:59	WG119765
Trichloroethylene	<.001		mg/l	07/28/03 08:59	WG119765
Trichlorofluoromethane	<.001		mg/l	07/28/03 08:59	WG119765
Vinyl chloride	<.001		mg/l	07/28/03 08:59	WG119765
Sulfide	<.05		mg/l	07/28/03 14:00	WG119821
TOC (Total Organic Carbon)	<1		mg/l	07/30/03 09:00	WG119928
Alkalinity	<10		mg/l	07/29/03 16:04	WG119980
methane	<10		ppm	07/29/03 00:00	WG120013
methane	<10		ppm	07/29/03 00:00	WG120013
Methane	<1		ppm	07/29/03 00:00	WG120013

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Ferrous Iron	mg/l	20.0	20.0	0.0350	20	L121922-01	WG119585
Nitrate	mg/l	0.00	2.90	200.	20	L121926-03	WG119588
Sulfate	mg/l	0.00	9.50	200.	20	L121926-03	WG119588
Free Carbon Dioxide	mg/l	23.8	24.0	0.837	20	L121922-03	WG119627
Sulfide	mg/l	0.140	0.160	13.7	20	L121781-03	WG119821
TOC (Total Organic Carbon)	mg/l	32.1	32.0	0.156	20	L121922-06	WG119928
Alkalinity	mg/l	190.	190.	0.169	20	L121630-05	WG119980

Analyte	Units	Laboratory Control Sample	Known Val	Result	% Rec	Limit	Batch
Ferrous Iron	mg/l	1	1.00	1.00	100.	85-115	WG119585
chloride	mg/l	20	20.0	100.	90-110	WG119588	
Nitrate	mg/l	4	3.80	95.0	90-110	WG119588	
Sulfate	mg/l	20	20.0	100.	85-115	WG119588	
Iron, Dissolved	mg/l	1.13	0.970	85.8	85-115	WG119594	
Manganese, Dissolved	mg/l	1.13	1.04	92.0	85-115	WG119594	
1,1,1-Trichloroethane	mg/l	.02	0.0209	105.	71-122	WG119652	
1,1,2,2-Tetrachloroethane	mg/l	.02	0.0189	94.5	78-120	WG119652	
1,1,2-Trichloroethane	mg/l	.02	0.0210	105.	82-117	WG119652	
1,1-Dichloroethane	mg/l	.02	0.0212	106.	59-135	WG119652	
1,1-Dichloroethene	mg/l	.02	0.0277	138.	60-166	WG119652	
1,2-Dibromoethane	mg/l	.02	0.0205	102.	79-121	WG119652	
2-Dichlorobenzene	mg/l	.05	0.0196	39.3	83-113	WG119652	

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L121922

Analyte	Units	Laboratory Control Known Val	Sample Result	% Rec	Limit	Batch
1,2-Dichloroethane	mg/l	.02	0.0209	105.	81-122	WG119652
1,2-Dichloropropane	mg/l	.02	0.0206	103.	74-125	WG119652
1,3-Dichlorobenzene	mg/l	.05	0.0191	38.2	80-124	WG119652
1,4-Dichlorobenzene	mg/l	.05	0.0200	39.9	84-115	WG119652
2-Chloroethyl vinyl ether	mg/l	.1	0.00	0.00	15-161	WG119652
Bromodichloromethane	mg/l	.02	0.0207	104.	76-117	WG119652
Bromoform	mg/l	.02	0.0206	103.	72-125	WG119652
Bromomethane	mg/l	.02	0.0137	68.7	25-170	WG119652
Carbon Tetrachloride	mg/l	.02	0.0229	114.	65-127	WG119652
Chlorobenzene	mg/l	.02	0.0222	111.	79-117	WG119652
Chlorodibromomethane	mg/l	.02	0.0207	104.	76-145	WG119652
Chloroethane	mg/l	.02	0.0173	86.5	37-130	WG119652
Chloroform	mg/l	.02	0.0223	111.	70-119	WG119652
Chloromethane	mg/l	.02	0.0196	98.0	39-109	WG119652
cis-1,2-Dichloroethene	mg/l	.02	0.0216	108.	72-128	WG119652
cis-1,3-Dichloropropene	mg/l	.02	0.0215	108.	86-137	WG119652
Dichlorodifluoromethane	mg/l	.02	0.0181	90.7	14-133	WG119652
Methylene chloride	mg/l	.02	0.0203	102.	60-127	WG119652
Tetrachloroethene	mg/l	.02	0.0229	115.	71-132	WG119652
trans-1,2-Dichloroethene	mg/l	.02	0.0230	115.	65-141	WG119652
trans-1,3-Dichloropropene	mg/l	.02	0.0202	101.	82-132	WG119652
Trichloroethene	mg/l	.02	0.0230	115.	81-129	WG119652
Trichlorofluoromethane	mg/l	.02	0.0155	77.6	46-94	WG119652
Vinyl chloride	mg/l	.02	0.0162	81.1	40-95	WG119652
1,1,1-Trichloroethane	mg/l	.02	0.0221	110.	71-122	WG119765
1,1,2,2-Tetrachloroethane	mg/l	.02	0.0188	93.9	78-120	WG119765
1,1,2-Trichloroethane	mg/l	.02	0.0219	109.	82-117	WG119765
1,1-Dichloroethane	mg/l	.02	0.0218	109.	59-135	WG119765
1,1-Dichloroethene	mg/l	.02	0.0286	143.	60-166	WG119765
1,2-Dibromoethane	mg/l	.02	0.0208	104.	79-121	WG119765
1,2-Dichlorobenzene	mg/l	.02	0.0205	103.	83-113	WG119765
1,2-Dichloroethane	mg/l	.02	0.0213	107.	81-122	WG119765
1,2-Dichloropropane	mg/l	.02	0.0212	106.	74-125	WG119765
1,3-Dichlorobenzene	mg/l	.02	0.0178	89.2	80-124	WG119765
1,4-Dichlorobenzene	mg/l	.02	0.0213	107.	84-115	WG119765
1-Chloroethyl vinyl ether	mg/l	.1	0.00	0.00	15-161	WG119765
Bromodichloromethane	mg/l	.02	0.0211	105.	76-117	WG119765
Bromoform	mg/l	.02	0.0214	107.	72-125	WG119765
Bromomethane	mg/l	.02	0.0136	68.1	25-170	WG119765
Carbon Tetrachloride	mg/l	.02	0.0236	118.	65-127	WG119765
Chlorobenzene	mg/l	.02	0.0227	114.	79-117	WG119765
Chlorodibromomethane	mg/l	.02	0.0211	105.	76-115	WG119765
Chloroethane	mg/l	.02	0.0182	91.2	37-130	WG119765
Chloroform	mg/l	.02	0.0229	115.	70-119	WG119765
Chloromethane	mg/l	.02	0.0200	100.	39-109	WG119765
cis-1,2-Dichloroethene	mg/l	.02	0.0228	114.	72-128	WG119765
cis-1,3-Dichloropropene	mg/l	.02	0.0231	115.	86-137	WG119765
Dichlorodifluoromethane	mg/l	.02	0.0183	91.5	14-133	WG119765
Methylene chloride	mg/l	.02	0.0207	103.	60-127	WG119765
Tetrachloroethene	mg/l	.02	0.0243	121.	71-132	WG119765
trans-1,2-Dichloroethene	mg/l	.02	0.0244	122.	65-141	WG119765
trans-1,3-Dichloropropene	mg/l	.02	0.0220	110.	82-132	WG119765
Trichloroethene	mg/l	.02	0.0245	122.	81-129	WG119765
Trichlorofluoromethane	mg/l	.02	0.0164	81.8	46-94	WG119765
Vinyl chloride	mg/l	.02	0.0169	84.3	40-95	WG119765
Sulfide	mg/l	.335	0.300	89.6	85-115	WG119821
OC (Total Organic-Carbon)	mg/l	4	4.30	108.	85-115	WG119928

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L121922

Analyte	Laboratory Control Sample			% Rec	Limit	Batch
	Units	Known Val	Result			
Alkalinity	mg/l	65	68.8	64.0	57-113	WG119980
Ethane	ppm	1000	640.	64.0	57-113	WG120013
Ethene	ppm	1000	700	70.0	57-113	WG120013
Methane	ppm	1000	610.	61.0	57-113	WG120013

Analyte	Laboratory Control Sample Duplicate							
	Units	LCSD	Res	Ref	RPD	Limit	Ref Samp	Batch
Ferrous Iron	mg/l	0.960	1.00	4.08	20		WG119585-2	WG119585
Chloride	mg/l	20.0	20.0	0.00	20		WG119588-2	WG119588
Nitrate	mg/l	3.90	3.80	2.60	20		WG119588-2	WG119588
Sulfate	mg/l	21.0	20.0	4.88	20		WG119588-2	WG119588
1,1,1-Trichloroethane	mg/l	0.0211	0.0209	0.857	28		R166396-5	WG119652
1,1,2-Tetrachloroethane	mg/l	0.0188	0.0189	0.743	10		R166396-5	WG119652
1,1,2-Trichloroethane	mg/l	0.0216	0.0210	2.87	16		R166396-5	WG119652
1,1-Dichloroethane	mg/l	0.0209	0.0212	1.48	17		R166396-5	WG119652
1,1-Dichloroethene	mg/l	0.0266	0.0277	3.87	36		R166396-5	WG119652
1,2-Dibromoethane	mg/l	0.0210	0.0205	2.51	19		R166396-5	WG119652
1,2-Dichlorobenzene	mg/l	0.0196	0.0196	0.204	16		R166396-5	WG119652
1,2-Dichloroethane	mg/l	0.0204	0.0209	2.37	13		R166396-5	WG119652
1,2-Dichloropropane	mg/l	0.0208	0.0206	0.870	14		R166396-5	WG119652
1,3-Dichlorobenzene	mg/l	0.0192	0.0191	0.678	25		R166396-5	WG119652
1,4-Dichlorobenzene	mg/l	0.0198	0.0200	0.805	18		R166396-5	WG119652
1-Chloroethyl vinyl ether	mg/l	0.00	0.00	0.00	25		R166396-5	WG119652
Bromodichloromethane	mg/l	0.0212	0.0207	2.01	13		R166396-5	WG119652
Bromoform	mg/l	0.0206	0.0206	0.146	18		R166396-5	WG119652
Bromomethane	mg/l	0.0153	0.0137	10.9	20		R166396-5	WG119652
Carbon Tetrachloride	mg/l	0.0224	0.0229	2.30	36		R166396-5	WG119652
Chlorobenzene	mg/l	0.0220	0.0222	1.22	21		R166396-5	WG119652
Chlorodibromomethane	mg/l	0.0210	0.0207	1.34	17		R166396-5	WG119652
Chloroethane	mg/l	0.0173	0.0173	0.289	25		R166396-5	WG119652
Chloroform	mg/l	0.0221	0.0223	0.811	26		R166396-5	WG119652
Chloromethane	mg/l	0.0188	0.0196	3.95	31		R166396-5	WG119652
cis-1,2-Dichloroethene	mg/l	0.0216	0.0216	0.139	18		R166396-5	WG119652
cis-1,3-Dichloropropene	mg/l	0.0220	0.0215	2.30	17		R166396-5	WG119652
Dichlorodifluoromethane	mg/l	0.0179	0.0181	1.33	28		R166396-5	WG119652
Ethylene chloride	mg/l	0.0198	0.0203	2.64	16		R166396-5	WG119652
Tetrachloroethene	mg/l	0.0228	0.0229	0.437	32		R166396-5	WG119652
trans-1,2-Dichloroethene	mg/l	0.0226	0.0230	1.71	27		R166396-5	WG119652
trans-1,3-Dichloropropene	mg/l	0.0203	0.0202	0.296	16		R166396-5	WG119652
Trichloroethene	mg/l	0.0233	0.0230	1.17	25		R166396-5	WG119652
Trichlorofluoromethane	mg/l	0.0154	0.0155	1.04	41		R166396-5	WG119652
Vinyl chloride	mg/l	0.0159	0.0162	2.18	36		R166396-5	WG119652
1,1,1-Trichloroethane	mg/l	0.0228	0.0221	3.17	28		R166582-5	WG119765
1,1,2-Tetrachloroethane	mg/l	0.0201	0.0188	6.84	10		R166582-5	WG119765
1,2-Trichloroethane	mg/l	0.0219	0.0219	0.0457	16		R166582-5	WG119765
1,1-Dichloroethane	mg/l	0.0224	0.0218	2.63	17		R166582-5	WG119765
1,1-Dichloroethene	mg/l	0.0299	0.0286	4.41	36		R166582-5	WG119765
1,2-Dibromoethane	mg/l	0.0216	0.0208	3.54	19		R166582-5	WG119765
1,2-Dichlorobenzene	mg/l	0.0210	0.0205	2.31	16		R166582-5	WG119765
1,2-Dichloroethane	mg/l	0.0222	0.0213	4.05	13		R166582-5	WG119765
1,2-Dichloropropane	mg/l	0.0215	0.0212	1.36	14		R166582-5	WG119765
1,3-Dichlorobenzene	mg/l	0.0194	0.0178	8.43	25		R166582-5	WG119765
1,4-Dichlorobenzene	mg/l	0.0217	0.0213	1.49	18		R166582-5	WG119765
-Chloroethyl vinyl ether	mg/l	0.00	0.00	0.00	25		R166582-5	WG119765

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Analyte	Units	Laboratory Control	Sample	Duplicate	Ref	Samp	Batch
Bromodichloromethane	mg/l	0.0216	0.0211	2.20	13	R166582-5	WG119765
Bromoform	mg/l	0.0216	0.0214	0.837	18	R166582-5	WG119765
Bromomethane	mg/l	0.0161	0.0136	16.5	20	R166582-5	WG119765
Carbon Tetrachloride	mg/l	0.0245	0.0236	3.86	36	R166582-5	WG119765
Chlorobenzene	mg/l	0.0235	0.0227	3.24	21	R166582-5	WG119765
Chlorodibromomethane	mg/l	0.0218	0.0211	3.50	17	R166582-5	WG119765
Chloroethane	mg/l	0.0189	0.0182	3.61	25	R166582-5	WG119765
Chloroform	mg/l	0.0236	0.0229	2.88	26	R166582-5	WG119765
Chloromethane	mg/l	0.0210	0.0200	4.73	31	R166582-5	WG119765
cis-1,2-Dichloroethene	mg/l	0.0234	0.0228	2.30	18	R166582-5	WG119765
cis-1,3-Dichloropropene	mg/l	0.0236	0.0231	2.06	17	R166582-5	WG119765
Dichlorodifluoromethane	mg/l	0.0189	0.0183	3.02	28	R166582-5	WG119765
Methylene chloride	mg/l	0.0211	0.0207	2.06	16	R166582-5	WG119765
Tetrachloroethene	mg/l	0.0254	0.0243	4.39	32	R166582-5	WG119765
trans-1,2-Dichloroethene	mg/l	0.0247	0.0244	1.22	27	R166582-5	WG119765
trans-1,3-Dichloropropene	mg/l	0.0222	0.0220	0.770	16	R166582-5	WG119765
Trichloroethene	mg/l	0.0255	0.0245	4.28	25	R166582-5	WG119765
Trichlorofluoromethane	mg/l	0.0168	0.0164	2.42	41	R166582-5	WG119765
Vinyl chloride	mg/l	0.0178	0.0169	5.37	36	R166582-5	WG119765
Sulfide	mg/l	0.300	0.300	0.00	20	WG119821-2	WG119821
TOC (Total Organic Carbon)	mg/l	4.00	4.30	7.23	20	WG119928-2	WG119928
Ethane	ppm	650.	640.	1.55	14	WG120013-7	WG120013
Ethene	ppm	690.	700.	1.44	14	WG120013-7	WG120013
Methane	ppm	640.	610.	4.80	14	WG120013-7	WG120013

Analyte	Units	Matrix Spike	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Ferrous Iron	mg/l	70.	0.0840	1.5	108	80-120	L121926-02	WG119585	
Iron, Dissolved	mg/l	0.964	0.00	1.13	85.3	75-125	L121922-02	WG119594	
Manganese, Dissolved	mg/l	12.4	12.0	1.13	39.3	75-125	L121922-02	WG119594	
1,1,1-Trichloroethane	mg/l	0.0222	0.00	0.02	111.	46-143	L121912-01	WG119652	
1,1,2,2-Tetrachloroethane	mg/l	0.0195	0.00	0.02	97.6	70-116	L121912-01	WG119652	
1,1,2-Trichloroethane	mg/l	0.0218	0.00	0.02	109.	70-122	L121912-01	WG119652	
1,1-Dichloroethane	mg/l	0.0217	0.00	0.02	108.	47-138	L121912-01	WG119652	
1,1-Dichloroethene	mg/l	0.0291	0.00	0.02	145.	56-162	L121912-01	WG119652	
1,2-Dibromoethane	mg/l	0.0217	0.00	0.02	108.	74-121	L121912-01	WG119652	
1,2-Dichlorobenzene	mg/l	0.0194	0.00	0.02	97.2	65-119	L121912-01	WG119652	
1,2-Dichloroethane	mg/l	0.0209	0.00	0.02	104.	48-148	L121912-01	WG119652	
1,2-Dichloropropane	mg/l	0.0211	0.00	0.02	105.	66-122	L121912-01	WG119652	
1,3-Dichlorobenzene	mg/l	0.0169	0.00	0.02	84.7	62-122	L121912-01	WG119652	
1,4-Dichlorobenzene	mg/l	0.0198	0.00	0.02	98.9	60-123	L121912-01	WG119652	
2-Chloroethyl vinyl ether	mg/l	0.00	0.00	0.1	0.0	0-100	L121912-01	WG119652	
Bromodichloromethane	mg/l	0.0211	0.00	0.02	106.	57-126	L121912-01	WG119652	
Bromoform	mg/l	0.0216	0.00	0.02	108.	52-130	L121912-01	WG119652	
Bromomethane	mg/l	0.0173	0.00	0.02	86.3	17-150	L121912-01	WG119652	
Carbon Tetrachloride	mg/l	0.0239	0.00	0.02	119.	42-141	L121912-01	WG119652	
Chlorobenzene	mg/l	0.0231	0.00	0.02	115.	66-125	L121912-01	WG119652	
Chlorodibromomethane	mg/l	0.0217	0.00	0.02	108.	58-123	L121912-01	WG119652	
Chloroethane	mg/l	0.0184	0.00	0.02	91.9	29-131	L121912-01	WG119652	
Chloroform	mg/l	0.0230	0.00	0.02	115.	46-136	L121912-01	WG119652	
chloromethane	mg/l	0.0200	0.00	0.02	100.	26-120	L121912-01	WG119652	
cis-1,2-Dichloroethene	mg/l	0.0224	0.00	0.02	112.	59-133	L121912-01	WG119652	
cis-1,3-Dichloropropene	mg/l	0.0221	0.00	0.02	110.	77-132	L121912-01	WG119652	
Dichlorodifluoromethane	mg/l	0.0192	0.00	0.02	96.2	13-113	L121912-01	WG119652	

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**Quality Assurance Report
Level II**

March 01, 2004

L121922

Analyte	Units	Matrix	Spike	Duplicate	TV	% Rec	Limit	Ref Samp	Batch
Methylene chloride	mg/l	0.0206	0.00	0.02	103.	55-123	L121912-01	WG119652	
Tetrachloroethene	mg/l	0.0242	0.00	0.02	121.	49-144	L121912-01	WG119652	
trans-1,2-Dichloroethene	mg/l	0.0237	0.00	0.02	119.	53-145	L121912-01	WG119652	
trans-1,3-Dichloropropene	mg/l	0.0208	0.00	0.02	104.	69-125	L121912-01	WG119652	
Trichloroethene	mg/l	0.0241	0.00	0.02	121.	61-141	L121912-01	WG119652	
Trichlorofluoromethane	mg/l	0.0165	0.00	0.02	82.5	24-113	L121912-01	WG119652	
Vinyl chloride	mg/l	0.0168	0.00	0.02	84.1	26-110	L121912-01	WG119652	
1,1,1-Trichloroethane	mg/l	0.0229	0.00	0.02	114.	46-143	L121833-02	WG119765	
1,1,2,2-Tetrachloroethane	mg/l	0.0202	0.00	0.02	101.	70-116	L121833-02	WG119765	
1,1,2-Trichloroethane	mg/l	0.0224	0.00	0.02	112.	70-122	L121833-02	WG119765	
1,1-Dichloroethane	mg/l	0.0228	0.00	0.02	114.	47-138	L121833-02	WG119765	
1,1-Dichloroethene	mg/l	0.0302	0.00	0.02	151.	56-162	L121833-02	WG119765	
1,2-Dibromoethane	mg/l	0.0218	0.00	0.02	109.	74-121	L121833-02	WG119765	
1,2-Dichlorobenzene	mg/l	0.0209	0.00	0.05	41.9	65-119	L121833-02	WG119765	
1,2-Dichloroethane	mg/l	0.0221	0.00	0.02	110.	48-148	L121833-02	WG119765	
1,2-Dichloropropane	mg/l	0.0218	0.00	0.02	109.	66-122	L121833-02	WG119765	
1,3-Dichlorobenzene	mg/l	0.0194	0.00	0.05	38.7	62-122	L121833-02	WG119765	
1,4-Dichlorobenzene	mg/l	0.0217	0.00	0.05	43.3	60-123	L121833-02	WG119765	
2-Chloroethylvinyl ether	mg/l	0.00	0.00	0.1	0.0	0-100	L121833-02	WG119765	
Bromodichloromethane	mg/l	0.0216	0.00	0.02	108.	57-126	L121833-02	WG119765	
Bromoform	mg/l	0.0225	0.00	0.02	112.	52-130	L121833-02	WG119765	
Bromomethane	mg/l	0.0167	0.00	0.02	83.4	17-150	L121833-02	WG119765	
Carbon Tetrachloride	mg/l	0.0246	0.00	0.02	123.	42-141	L121833-02	WG119765	
Chlorobenzene	mg/l	0.0235	0.00	0.02	118.	66-125	L121833-02	WG119765	
Chlorodibromomethane	mg/l	0.0218	0.00	0.02	109.	58-123	L121833-02	WG119765	
Chloroethane	mg/l	0.0192	0.00	0.02	95.8	29-131	L121833-02	WG119765	
Chloroform	mg/l	0.0233	0.00	0.02	116.	46-136	L121833-02	WG119765	
Chloromethane	mg/l	0.0211	0.00	0.02	105.	26-120	L121833-02	WG119765	
cis-1,2-Dichloroethene	mg/l	0.0234	0.00	0.02	117.	59-133	L121833-02	WG119765	
cis-1,3-Dichloropropene	mg/l	0.0234	0.00	0.02	117.	77-132	L121833-02	WG119765	
chlorodifluoromethane	mg/l	0.0190	0.00	0.02	94.9	13-113	L121833-02	WG119765	
Methylene chloride	mg/l	0.0210	0.00	0.02	105.	55-123	L121833-02	WG119765	
Tetrachloroethene	mg/l	0.0253	0.00	0.02	126.	49-144	L121833-02	WG119765	
trans-1,2-Dichloroethene	mg/l	0.0252	0.00	0.02	126.	53-145	L121833-02	WG119765	
trans-1,3-Dichloropropene	mg/l	0.0221	0.00	0.02	111.	69-125	L121833-02	WG119765	
Trichloroethene	mg/l	0.0251	0.00	0.02	125.	61-141	L121833-02	WG119765	
Trichlorofluoromethane	mg/l	0.0169	0.00	0.02	84.6	24-113	L121833-02	WG119765	
Vinyl chloride	mg/l	0.0177	0.00	0.02	88.5	26-110	L121833-02	WG119765	
Sulfide	mg/l	0.720	0.00	0.67	107.	80-120	L121922-02	WG119821	
TOC (Total Organic Carbon)	mg/l	150.	130.	20	100.	80-120	L121922-01	WG119928	
Alkalinity	mg/l	202.	82.0	150	80.2	80-120	L121627-01	WG119980	

Analyte	Units	Matrix	Spike	Duplicate	RPD	Limit	%Rec	Ref Samp	Batch
Ferrous Iron	mg/l	1.60	1.70	6.06	20	101.	L121926-02	WG119585	
Boron, Dissolved	mg/l	0.967	0.964	0.311	20	85.6	L121922-02	WG119594	
Manganese, Dissolved	mg/l	12.4	12.4	0.282	20	36.2	L121922-02	WG119594	
1,1,1-Trichloroethane	mg/l	0.0205	0.0222	7.88	28	102.	L121912-01	WG119652	
1,1,2,2-Tetrachloroethane	mg/l	0.0181	0.0195	7.55	10	90.5	L121912-01	WG119652	
1,1,2-Trichloroethane	mg/l	0.0205	0.0218	6.14	16	103.	L121912-01	WG119652	
1,1-Dichloroethane	mg/l	0.0207	0.0217	4.72	17	103.	L121912-01	WG119652	
1,1-Dichloroethene	mg/l	0.0267	0.0291	8.43	36	134.	L121912-01	WG119652	
2-Dibromoethane	mg/l	0.0200	0.0217	7.77	19	100.	L121912-01	WG119652	

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March 01, 2004

L121922

Analyte	Matrix	Spiked Units	Duplicate	MSD	Res	Ref	Res	RPD	Limit	%Rec	Ref	Samp	Batch
1,2-Dichlorobenzene	mg/l	0.0188	0.0194	3.19	16	94.2			L121912-01	WG119652			
1,2-Dichloroethane	mg/l	0.0200	0.0209	4.36	13	99.9			L121912-01	WG119652			
1,2-Dichloropropane	mg/l	0.0196	0.0211	7.48	14	97.9			L121912-01	WG119652			
1,3-Dichlorobenzene	mg/l	0.0179	0.0169	5.74	25	89.7			L121912-01	WG119652			
1,4-Dichlorobenzene	mg/l	0.0185	0.0198	6.47	18	92.7			L121912-01	WG119652			
2-Chloroethyl vinyl ether	mg/l	0.00	0.00	0.00	25	0.00			L121912-01	WG119652			
Bromodichloromethane	mg/l	0.0200	0.0211	5.59	13	100.			L121912-01	WG119652			
Bromoform	mg/l	0.0199	0.0216	8.24	18	99.6			L121912-01	WG119652			
Bromomethane	mg/l	0.0165	0.0173	4.32	20	82.7			L121912-01	WG119652			
Carbon Tetrachloride	mg/l	0.0224	0.0239	6.62	36	112.			L121912-01	WG119652			
Chlorobenzene	mg/l	0.0215	0.0231	6.91	21	108.			L121912-01	WG119652			
Chlorodibromomethane	mg/l	0.0200	0.0217	7.91	17	100.			L121912-01	WG119652			
Chloroethane	mg/l	0.0169	0.0184	8.10	25	84.7			L121912-01	WG119652			
Chloroform	mg/l	0.0216	0.0230	5.92	26	108.			L121912-01	WG119652			
Chloromethane	mg/l	0.0191	0.0200	5.01	31	95.3			L121912-01	WG119652			
cis-1,2-Dichloroethene	mg/l	0.0211	0.0224	6.16	18	106.			L121912-01	WG119652			
cis-1,3-Dichloropropene	mg/l	0.0210	0.0221	5.11	17	105.			L121912-01	WG119652			
Dichlorodifluoromethane	mg/l	0.0184	0.0192	4.47	28	92.0			L121912-01	WG119652			
Methylene chloride	mg/l	0.0196	0.0206	4.63	16	98.1			L121912-01	WG119652			
Tetrachloroethylene	mg/l	0.0224	0.0242	7.74	32	112.			L121912-01	WG119652			
trans-1,2-Dichloroethene	mg/l	0.0225	0.0237	5.28	27	113.			L121912-01	WG119652			
trans-1,3-Dichloropropene	mg/l	0.0197	0.0208	5.45	16	98.3			L121912-01	WG119652			
Trichloroethylene	mg/l	0.0222	0.0241	8.24	25	111.			L121912-01	WG119652			
Trichlorofluoromethane	mg/l	0.0154	0.0165	6.77	41	77.1			L121912-01	WG119652			
Vinyl chloride	mg/l	0.0162	0.0168	3.82	36	80.9			L121912-01	WG119652			
,1,1-Trichloroethane	mg/l	0.0219	0.0229	4.24	28	110.			L121833-02	WG119765			
,1,2,2-Tetrachloroethane	mg/l	0.0197	0.0202	2.61	10	98.4			L121833-02	WG119765			
,1,1,2-Trichloroethane	mg/l	0.0216	0.0224	3.77	16	108.			L121833-02	WG119765			
,1,1-Dichloroethane	mg/l	0.0216	0.0228	5.32	17	108.			L121833-02	WG119765			
,1-Dichloroethene	mg/l	0.0281	0.0302	7.38	36	140.			L121833-02	WG119765			
,2-Dibromoethane	mg/l	0.0210	0.0218	3.87	19	105.			L121833-02	WG119765			
,2-Dichlorobenzene	mg/l	0.0208	0.0209	0.815	16	41.5			L121833-02	WG119765			
,1,2-Dichloroethane	mg/l	0.0212	0.0221	3.93	13	106.			L121833-02	WG119765			
,1,2-Dichloropropane	mg/l	0.0210	0.0218	3.50	14	105.			L121833-02	WG119765			
,3-Dichlorobenzene	mg/l	0.0191	0.0194	1.25	25	38.2			L121833-02	WG119765			
,4-Dichlorobenzene	mg/l	0.0212	0.0217	1.96	18	42.5			L121833-02	WG119765			
,2-Chloroethyl vinyl ether	mg/l	0.00	0.00	0.00	25	0.00			L121833-02	WG119765			
Bromodichloromethane	mg/l	0.0214	0.0216	1.12	13	107.			L121833-02	WG119765			
Bromoform	mg/l	0.0216	0.0225	4.08	18	108.			L121833-02	WG119765			
Bromomethane	mg/l	0.0158	0.0167	5.17	20	79.2			L121833-02	WG119765			
Carbon Tetrachloride	mg/l	0.0235	0.0246	4.91	36	117.			L121833-02	WG119765			
Chlorobenzene	mg/l	0.0228	0.0235	3.11	21	114.			L121833-02	WG119765			
Chlorodibromomethane	mg/l	0.0215	0.0218	1.43	17	107.			L121833-02	WG119765			
Chloroethane	mg/l	0.0180	0.0192	6.02	25	90.2			L121833-02	WG119765			
Chloroform	mg/l	0.0228	0.0233	2.30	26	114.			L121833-02	WG119765			
Chloromethane	mg/l	0.0202	0.0211	4.27	31	101.			L121833-02	WG119765			
cis-1,2-Dichloroethene	mg/l	0.0225	0.0234	4.14	18	112.			L121833-02	WG119765			
cis-1,3-Dichloropropene	mg/l	0.0228	0.0234	2.64	17	114.			L121833-02	WG119765			
Dichlorodifluoromethane	mg/l	0.0184	0.0190	2.94	28	92.1			L121833-02	WG119765			
Ethylene chloride	mg/l	0.0206	0.0210	2.12	16	103.			L121833-02	WG119765			
Tetrachloroethylene	mg/l	0.0243	0.0253	3.95	32	122.			L121833-02	WG119765			
trans-1,2-Dichloroethene	mg/l	0.0240	0.0252	4.84	27	120.			L121833-02	WG119765			
trans-1,3-Dichloropropene	mg/l	0.0214	0.0221	3.45	16	107.			L121833-02	WG119765			
Trichloroethylene	mg/l	0.0243	0.0251	3.12	25	121.			L121833-02	WG119765			
Trichlorofluoromethane	mg/l	0.0161	0.0169	5.09	41	80.4			L121833-02	WG119765			
Vinyl chloride	mg/l	0.0168	0.0177	5.40	36	83.9			L121833-02	WG119765			
Sulfide	mg/l	0.740	0.720	2.74	20	110.			L121922-02	WG119821			

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TOC (Total Organic Carbon)	mg/l	150.	150.	0.00	20	100.	L121922-01	WG119928
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Analyte	Matrix	Spike	Duplicate	Units	MSD	Res	Ref	Res	RPD	Limit	%Rec	Ref	Samp	Batch
Alkalinity				mg/l	100	218	202	202	7.27	20	90.4	L121627	01	WG119980

Batch number /Run number / Sample number cross reference

WG119627: R166303: L121922-01 02 03 04 05 06
WG119594: R166353: L121922-01 02 03 04 05 06
WG119585: R166368: L121922-01 02 03 04 05 06
WG119652: R166396: L121922-02 03 04 05 06
WG119588: R166484: L121922-01 02 03 04 05 06
WG119821: R166573: L121922-01 02 03 04 05 06
WG119765: R166582: L121922-01
WG119980: R166652: L121922-01 02 03 04 05 06
WG120013: R166676: L121922-01 02 03 04 05 06
WG119928: R166714: L121922-01 02 03 04 05 06

* See Attachment B of standard report for list of qualifiers.
* Calculations are performed prior to rounding of reported values


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ESC Level 2 Data Package

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Quantum Environmental Inc.

6001 Chapel Hill Road. Suite 108
Raleigh, NC 27607

Alternate billing information:

Chain of Custody
Page 1 of 2

Report to: Mr. Tom Davis	Email: tdavis@quantumcos.com	Analysis/Container/Preservative										
Project Description: <i>Teer-HRC Monitoring</i>	City/State Collected <i>NC</i>											
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project #: <i>0013-94-012</i>	Lab Project # OUANTUM-HRCINJECTI										
Collected by (print): <i>Tom Davis</i>	Site/Facility ID#: <i>—</i>	P.O.#:										
Collected by (signature): <i>Tom Davis</i>	Rush? (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50%	Date Results Needed	No. of Cntrs	ALK, Dissolved Mtls 500mlHDPE-NoPres	ETHANE 40mlAmb-NoPres	ETHENE 40mlAmb-NoPres	FERUSFE 250mlAmb-HCl	METHANE 40mlAmb-NoPres	NO3, CO2, SO4, CL 500mlHDPE-NoPres	SULFIDE 500mlHDPE-NaOH+ZnAc	TOC 250mlAmb-Sepia-HCl	CoCode: OUANTUM (lab use only)
Packed in Beaker Y	Email? No X Yes FAX? No Yes											Template/Prelogin T17810/P88474 Cooler #: <i>79 ds</i> Shipped Via: FedEX Ground
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Remarks/Contaminant					Sample # (lab only)	
MW-25	G	GW		7/24/03	1430	13	X X X X X X X X X X				L121922-01	
MW-25C		GW			1300	13	X X X X X X X X X X				OR	
MW-29		GW			1330	13	X X X X X X X X X X				63	
MW-29C		GW			1400	13	X X X X X X X X X X				04	
MW-18		GW			1445	13	X X X X X X X X X X				05	
BW-5		GW			1230	13	X X X X X X X X X X				06	

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks: Please note:

Flow _____ Other _____

Ferrous Iron and CO2 have 24 hr hold times.

Nitrate has 48 hr hold time.

Relinquished by: (Signature) <i>Tom Davis</i>	Date: <i>7/24/03</i>	Time: <i>1535</i>	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only) <i>OK</i>
Relinquished by: (Signature) <i>Tom Davis</i>	Date: _____	Time: _____	Received by: (Signature)	Temp: <i>31.1</i> Bottles Received: <i>78.146</i>	_____
Relinquished by: (Signature) <i>Tom Davis</i>	Date: _____	Time: _____	Received for lab by: (Signature)	Date: <i>7/25/03</i>	pH Checked: <i><2>12</i> NCF: _____

Quantum Environmental Inc. 6001 Chapel Hill Road, Suite 108 Raleigh, NC 27607		Alternate billing information:		Analysis/Container/Preservative		Chain of Custody Page 2 of 2	
Report to: Mr. Tom Davis		Email: tdavis@quantumcos.com				Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859	
Project Description: <i>Teer - HRC Monitoring</i>		City/State Collected <i>NC</i>					
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project # <i>0013-94-012</i>	Lab Project # OUANTUM-HRCINJECTI					
Collected by (print): <i>Tan Davis</i>	Site/Facility ID#: <i>—</i>	P.O.#:					
Collected by (signature): <i>Tan Davis</i>	Rush? <input checked="" type="checkbox"/> (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50%	Date Results Needed	No. of Cntrs	Y601 40mlAmb-HCl		CoCode: OUANTUM (lab use only) Template/Prelogin T17810/P88474 Cooler #: <i>79ds</i>	
Packed on Ice? <input checked="" type="checkbox"/>	Email? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes FAX? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes					Shipped Via: FedEX Ground	
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	Remarks/Contaminant	Sample # (lab only)
MW-25	G	GW		7/24/03	1430	13 X	L121922-01
MW-25L		GW			1300	13 X	-02
MW-29		GW			1330	13 X	-03
MW-29L		GW			1400	13 X	-04
MW-18		GW			1145	13 X	-05
BW-5		GW			1230	13 X	-06

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks: Please note:

Flow _____ Other _____

Ferrous Iron and CO₂ have 24 hr hold times.

Nitrate has 48 hr hold time.

Relinquished by: (Signature) <i>[Signature]</i>	Date: <i>7/24/03</i>	Time: <i>1545</i>	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input checked="" type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) <i>OK</i>
Relinquished by: (Signature) <i>[Signature]</i>	Date: <i>7/24/03</i>	Time: <i>1545</i>	Received by: (Signature)	Temp: <i>74</i> Bottles Received: <i>78+146</i>	
Relinquished by: (Signature) <i>[Signature]</i>	Date: <i>7/25/03</i>	Time: <i>9100</i>	Received for lab by: (Signature) <i>AJV</i>	Date: <i>7/25/03</i> Time: <i>9100</i>	pH Checked: <i>88-712</i> NCF: <i>—</i>

Appendix E

Appendix E

November 2003

**Laboratory Analytical Results
and
Chain of Custody**



ENVIRONMENTAL
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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

November 25, 2003

Date Received : November 06, 2003
Description : Teer-HRC Monitoring
Sample ID : MW-25I
Collected By : Tom Davis
Collection Date : 11/04/03 12:18

ESC Sample # : L133670-01

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	10.	mg/l		11/18/03	1
Butyric Acid	BDL	25.	mg/l		11/19/03	1
Lactic Acid	BDL	10.	mg/l		11/19/03	1
Propionic Acid	BDL	10.	mg/l		11/20/03	1
Pyruvic Acid	BDL	10.	mg/l		11/20/03	1

RECEIVED
DEC 01 2003

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

This report shall not be reproduced, except in full, without the written approval from ESC.

Reported: 11/25/03 12:21 Printed: 11/25/03 12:22

L133670-01 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

November 25, 2003

Date Received : November 06, 2003
Description : Teer-HRC Monitoring
Sample ID : MW-25
Collected By : Tom Davis
Collection Date : 11/04/03 12:42

ESC Sample # : L133670-02

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	40.	10.	mg/l		11/18/03	1
Butyric Acid	BDL	25.	mg/l		11/19/03	1
Lactic Acid	BDL	10.	mg/l		11/19/03	1
Propionic Acid	BDL	10.	mg/l		11/20/03	1
Pyruvic Acid	BDL	10.	mg/l		11/20/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L133670-02 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.


Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

November 25, 2003

Date Received : November 06, 2003
Description : Teer-HRC Monitoring
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 11/04/03 13:05

ESC Sample # : L133670-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	19.	10.	mg/l		11/18/03	1
Butyric Acid	BDL	25.	mg/l		11/19/03	1
Lactic Acid	BDL	10.	mg/l		11/19/03	1
Propionic Acid	BDL	10.	mg/l		11/20/03	1
Pyruvic Acid	BDL	10.	mg/l		11/20/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L133670-03 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

November 25, 2003

Date Received :	November 06, 2003	ESC Sample # :	L133670-04
Description :	Teer-HRC Monitoring	Site ID :	
Sample ID :	MW-18	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	11/04/03 13:30		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	10.	mg/l		11/18/03	1
Butyric Acid	BDL	25.	mg/l		11/19/03	1
Lactic Acid	BDL	10.	mg/l		11/19/03	1
Propionic Acid	BDL	10.	mg/l		11/20/03	1
Pyruvic Acid	BDL	10.	mg/l		11/20/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/25/03 12:21 Printed: 11/25/03 12:22

L133670-04 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.


Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

November 25, 2003

Date Received : November 06, 2003 ESC Sample # : L133670-05
Description : Teer-HRC Monitoring Site ID :
Sample ID : MW-29 Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 11/04/03 13:55

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	10.	mg/l		11/18/03	1
Butyric Acid	BDL	25.	mg/l		11/19/03	1
Lactic Acid	BDL	10.	mg/l		11/19/03	1
Propionic Acid	BDL	10.	mg/l		11/20/03	1
Pyruvic Acid	BDL	10.	mg/l		11/20/03	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - Q016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/25/03 12:21 Printed: 11/25/03 12:22

L133670-05 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

November 25, 2003

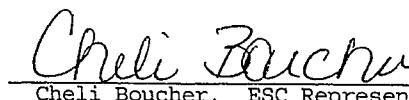
Date Received : November 06, 2003
Description : Teer-HRC Monitoring
Sample ID : MW-29I
Collected By : Tom Davis
Collection Date : 11/04/03 14:18

ESC Sample # : L133670-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	23.	10.	mg/l		11/18/03	1
Butyric Acid	BDL	25.	mg/l		11/19/03	1
Lactic Acid	BDL	10.	mg/l		11/19/03	1
Propionic Acid	BDL	10.	mg/l		11/20/03	1
Pyruvic Acid	BDL	10.	mg/l		11/20/03	1


Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- BH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 11/25/03 12:21 Printed: 11/25/03 12:22

L133670-06 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.

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Quantum Environmental Inc.
Mr. Tom Davis
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Quality Assurance Report
Level II
L133670

November 25, 2003

Batch number /Run number / Sample number cross reference

WG132299: R179754: L133670-01 02 03 04 05 06

* See Attachment B of standard report for list of qualifiers.
* Calculations are performed prior to rounding of reported values



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Quantum Environmental Inc.
Mr. Tom Davis
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Quality Assurance Report
Level II
L133670

November 25, 2003

ESC Level 2 Data Package

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Quantum Environmental Inc. 6001 Chapel Hill Road, Suite 108 Raleigh, NC 27607				Alternate billing information:		Analysis/Container/Preservative						Chain of Custody Page 1 of 1		
Report to: Mr. Tom Davis		Email: tdavis@quantumcos.com								Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859				
Project Description: Teer-HRC Monitoring		City/State Collected <i>NC</i>												
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project #: 0013-94-012		Lab Project # OUANTUM-HRCINJECTI											
Collected by (print) <i>JB</i>	Site/Facility ID#:		P.O. #:											
Collected by (signature): <i>Tom Davis</i>	Rush? (Lab MUST Be Notified)		Date Results Needed		No. of Cntrs							CoCode: OUANTUM (lab use only) Template/Prelogin T17811/P93925 Cooler #: <i>919Ham</i> Shipped Via: FedEx Ground		
Packed on Ice N <i>Y</i>	Same Day 200% Next Day 100% Two Day 50%		Email? No <input checked="" type="checkbox"/> Yes FAX? No <input type="checkbox"/> Yes											
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time							Remarks/Contaminant	Sample # (lab only)	
MW-25i	G	GW		11/6/03	1240	2	X							L133670-01
MW-25	I	GW			1242	2	X							02
RW-5	I	GW			1305	2	X							03
MW-18	I	GW			1330	2	X							04
MW-29	I	GW			1355	2	X							05
MW-29i	I	GW			1418	2	X							06

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature) <i>WD</i>	Date: 4/16/03	Time: 1600	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only) <i>D/L</i>
Relinquished by: (Signature) <i>WD</i>	Date:	Time:	Received by: (Signature)	Temp: 3.1° Bottles Received: 12+TB	
Relinquished by: (Signature) <i>JM</i>	Date:	Time:	Received for lab by: (Signature) <i>JM</i>	Date: 11/6/03 Time: 9:00	pH Checked: NCF:



**ENVIRONMENTAL
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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	November 05, 2003	ESC Sample # :	L133503-01
Description :	Teer-HRC Monitoring	Site ID :	
Sample ID :	MW-25 I	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	11/04/03 12:18		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1200	1000	ppb	8015M	11/05/03	1
Chloride	15000	1000	ug/l	9056	11/11/03	1
Nitrate	BDL	100	ug/l	9056	11/11/03	1
Sulfate	5400	5000	ug/l	9056	11/11/03	1
Alkalinity	530000	50000	ug/l	310.2	11/10/03	5
Free Carbon Dioxide	130000	50000	ug/l	406B	11/05/03	5
Ethane	BDL	100	ppb	8015M	11/05/03	1
Ethene	BDL	100	ppb	8015M	11/05/03	1
Ferrous Iron	1600	50.	ug/l	3500Fe-B	11/05/03	1
Sulfide	BDL	50.	ug/l	9030B	11/07/03	1
TOC (Total Organic Carbon)	13000	1000	ug/l	9060	11/06/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	11/07/03	1
Manganese, Dissolved	9600	10.	ug/l	6010B	11/07/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	11/07/03	1
Bromoform	BDL	1.0	ug/l	601MS	11/07/03	1
Bromomethane	BDL	1.0	ug/l	601MS	11/07/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	11/07/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	11/07/03	1
Chloroethane	110	1.0	ug/l	601MS	11/07/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	11/07/03	1
Chloroform	BDL	1.0	ug/l	601MS	11/07/03	1
Chloromethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	11/07/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : November 05, 2003
Description : Teer-HRC Monitoring
Sample ID : MW-25 I
Collected By : Tom Davis
Collection Date : 11/04/03 12:18

ESC Sample # : L133503-01

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	39.	1.0	ug/l	601MS	11/07/03	1
1,2-Dichloroethane	1.4	1.0	ug/l	601MS	11/07/03	1
1,1-Dichloroethene	1.7	1.0	ug/l	601MS	11/07/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	11/07/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	11/07/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	11/07/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	11/07/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
Trichloroethene	1.1	1.0	ug/l	601MS	11/07/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	11/07/03	1
Vinyl chloride	13.	1.0	ug/l	601MS	11/07/03	1



for
Chelsie Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	November 05, 2003	ESC Sample # :	L133503-02
Description :	Teer-HRC Monitoring	Site ID :	
Sample ID :	MW-25	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	11/04/03 12:42		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1600	1000	ppb	8015M	11/05/03	1
Chloride	42000	1000	ug/l	9056	11/12/03	1
Nitrate	BDL	100	ug/l	9056	11/12/03	1
Sulfate	BDL	5000	ug/l	9056	11/12/03	1
Alkalinity	610000	50000	ug/l	310.2	11/10/03	5
Free Carbon Dioxide	220000	50000	ug/l	406B	11/05/03	5
Ethane	BDL	100	ppb	8015M	11/05/03	1
Ethene	BDL	100	ppb	8015M	11/05/03	1
Ferrous Iron	14000	1200	ug/l	3500Fe-B	11/05/03	25
Sulfide	BDL	50.	ug/l	9030B	11/07/03	1
TOC (Total Organic Carbon)	25000	1000	ug/l	9060	11/06/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	11/07/03	1
Manganese, Dissolved	13000	10.	ug/l	6010B	11/07/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	11/07/03	1
Bromoform	BDL	1.0	ug/l	601MS	11/07/03	1
Bromomethane	BDL	1.0	ug/l	601MS	11/07/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	11/07/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	11/07/03	1
Chloroethane	120	1.0	ug/l	601MS	11/07/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	11/07/03	1
Chloroform	BDL	1.0	ug/l	601MS	11/07/03	1
Chloromethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	11/07/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Raleigh, NC 27607

March 01, 2004

Date Received :	November 05, 2003	ESC Sample # :	L133503-02
Description :	Teer-HRC Monitoring	Site ID :	
Sample ID :	MW-25	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	11/04/03 12:42		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	64.	1.0	ug/l	601MS	11/07/03	1
1,2-Dichloroethane	1.4	1.0	ug/l	601MS	11/07/03	1
1,1-Dichloroethene	1.9	1.0	ug/l	601MS	11/07/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	11/07/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	11/07/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	11/07/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	11/07/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
Trichloroethene	1.6	1.0	ug/l	601MS	11/07/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	11/07/03	1
Vinyl chloride	14.	1.0	ug/l	601MS	11/07/03	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

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KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : November 05, 2003
Description : Teer-HRC Monitoring
Sample ID : MW-29
Collected By : Tom Davis
Collection Date : 11/04/03 13:55

ESC Sample # : L133503-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ppb	8015M	11/05/03	1
Chloride	1400	1000	ug/l	9056	11/12/03	1
Nitrate	BDL	100	ug/l	9056	11/12/03	1
Sulfate	27000	5000	ug/l	9056	11/12/03	1
Alkalinity	250000	10000	ug/l	310.2	11/10/03	1
Free Carbon Dioxide	BDL	50000	ug/l	406B	11/05/03	5
Ethane	BDL	100	ppb	8015M	11/05/03	1
Ethene	BDL	100	ppb	8015M	11/05/03	1
Ferrous Iron	1100	50.	ug/l	3500Fe-B	11/05/03	1
Sulfide	BDL	50.	ug/l	9030B	11/07/03	1
TOC (Total Organic Carbon)	6600	1000	ug/l	9060	11/06/03	1
Iron, Dissolved	BDL	50.	ug/l	6010B	11/07/03	1
Manganese, Dissolved	310	10.	ug/l	6010B	11/07/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	11/07/03	1
Bromoform	BDL	1.0	ug/l	601MS	11/07/03	1
Bromomethane	BDL	1.0	ug/l	601MS	11/07/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	11/07/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	11/07/03	1
Chloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	11/07/03	1
Chloroform	BDL	1.0	ug/l	601MS	11/07/03	1
Chloromethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	11/07/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : November 05, 2003
Description : Teer-HRC Monitoring
Sample ID : MW-29
Collected By : Tom Davis
Collection Date : 11/04/03 13:55

ESC Sample # : L133503-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	11/07/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	11/07/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	11/07/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	11/07/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
Trichloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	11/07/03	1
Vinyl chloride	BDL	1.0	ug/l	601MS	11/07/03	1

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : November 05, 2003 ESC Sample # : L133503-04
 Description : Teer-HRC Monitoring Site ID :
 Sample ID : MW-29 I Project # : 0013-94-012
 Collected By : Tom Davis
 Collection Date : 11/04/03 14:18

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	3900	1000	ppb	8015M	11/05/03	1
Chloride	7800	1000	ug/l	9056	11/12/03	1
Nitrate	BDL	100	ug/l	9056	11/12/03	1
Sulfate	BDL	5000	ug/l	9056	11/12/03	1
Alkalinity	500000	50000	ug/l	310.2	11/10/03	5
Free Carbon Dioxide	260000	50000	ug/l	406B	11/05/03	5
Ethane	BDL	100	ppb	8015M	11/05/03	1
Ethene	BDL	100	ppb	8015M	11/05/03	1
Ferrous Iron	11000	1200	ug/l	3500Fe-B	11/05/03	25
Sulfide	BDL	50.	ug/l	9030B	11/07/03	1
TOC (Total Organic Carbon)	26000	1000	ug/l	9060	11/06/03	1
Iron, Dissolved	340	50.	ug/l	6010B	11/07/03	1
Manganese, Dissolved	8900	10.	ug/l	6010B	11/07/03	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	11/07/03	1
Bromoform	BDL	1.0	ug/l	601MS	11/07/03	1
Bromomethane	BDL	1.0	ug/l	601MS	11/07/03	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	11/07/03	1
Chlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	11/07/03	1
Chloroethane	20.	1.0	ug/l	601MS	11/07/03	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	11/07/03	1
Chloroform	BDL	1.0	ug/l	601MS	11/07/03	1
Chloromethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	11/07/03	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	11/07/03	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
 KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : November 05, 2003
Description : Teer-HRC Monitoring
Sample ID : MW-29 I
Collected By : Tom Davis
Collection Date : 11/04/03 14:18

ESC Sample # : L133503-04

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	70.	1.0	ug/l	601MS	11/07/03	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,1-Dichloroethene	6.4	1.0	ug/l	601MS	11/07/03	1
cis-1,2-Dichloroethene	3.2	1.0	ug/l	601MS	11/07/03	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	11/07/03	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	11/07/03	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	11/07/03	1
Methylene chloride	BDL	5.0	ug/l	601MS	11/07/03	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	11/07/03	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	11/07/03	1
Trichloroethene	2.1	1.0	ug/l	601MS	11/07/03	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	11/07/03	1
Vinyl chloride	39.	1.0	ug/l	601MS	11/07/03	1


Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L133503-01	Nitrate	Q
	Ferrous Iron	T8
	Manganese, Dissolved	V
	Bromomethane	J4
	Chloroethane	E
	1,1,2,2-Tetrachloroethane	J3
L133503-02	Nitrate	Q
	Ferrous Iron	T8
	Bromomethane	J4
	Chloroethane	E
L133503-03	1,1,2,2-Tetrachloroethane	J3
	Nitrate	Q
	Bromomethane	J4
L133503-04	1,1,2,2-Tetrachloroethane	J3
	Nitrate	Q
	Bromomethane	J4
	1,1,2,2-Tetrachloroethane	J3

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
E	GTL (EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
Q	(ESC) Sample held beyond the accepted holding time.
T8	(ESC) - Additional method/sample information: Sample(s) received past/too close to holding time expiration.
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

Control Limits

2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	79-126	83-119
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	81-114	82-116
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	65-129	72-126

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

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Raleigh, NC 27607

**Quality Assurance Report
Level II**

L133503

March 01, 2004

Analyte	Result	Units	Laboratory Blank	Date Analyzed	Batch
Chloride	<.1	mg/l	11/11/03 20:19	WG132033	
Nitrate	< .1	mg/l	11/11/03 20:19	WG132033	
Sulfate	< 5	mg/l	11/11/03 20:19	WG132033	
Ferrous Iron	< .05	mg/l	11/05/03 13:30	WG132071	
Free Carbon Dioxide	< 10	mg/l	11/05/03 16:30	WG132119	
Iron, Dissolved	< .05	mg/l	11/07/03 04:06	WG132158	
Manganese, Dissolved	< .01	mg/l	11/07/03 04:06	WG132158	
1,1,1-Trichloroethane	< .001	mg/l	11/06/03 10:36	WG132202	
1,1,1-Trichloroethane	< .001	mg/l	11/07/03 10:51	WG132202	
1,1,2,2-Tetrachloroethane	< .001	mg/l	11/06/03 10:36	WG132202	
1,1,2,2-Tetrachloroethane	< .001	mg/l	11/07/03 10:51	WG132202	
1,1,2,2-Trichloroethane	< .001	mg/l	11/06/03 10:36	WG132202	
1,1,2-Trichloroethane	< .001	mg/l	11/07/03 10:51	WG132202	
1,1-Dichloroethane	< .001	mg/l	11/06/03 10:36	WG132202	
1,1-Dichloroethane	< .001	mg/l	11/07/03 10:51	WG132202	
1,1-Dichloroethene	< .001	mg/l	11/06/03 10:36	WG132202	
1,1-Dichloroethene	< .001	mg/l	11/07/03 10:51	WG132202	
1,2-Dibromoethane	< .001	mg/l	11/06/03 10:36	WG132202	
1,2-Dichlorobenzene	< .001	mg/l	11/06/03 10:36	WG132202	
1,2-Dichlorobenzene	< .001	mg/l	11/07/03 10:51	WG132202	
1,2-Dichloroethane	< .001	mg/l	11/06/03 10:36	WG132202	
1,2-Dichloropropane	< .001	mg/l	11/06/03 10:36	WG132202	
1,2-Dichloropropane	< .001	mg/l	11/07/03 10:51	WG132202	
1,3-Dichlorobenzene	< .001	mg/l	11/06/03 10:36	WG132202	
1,3-Dichlorobenzene	< .001	mg/l	11/07/03 10:51	WG132202	
1,4-Dichlorobenzene	< .001	mg/l	11/06/03 10:36	WG132202	
1,4-Dichlorobenzene	< .001	mg/l	11/07/03 10:51	WG132202	
-Chloroethyl vinyl ether	< .001	mg/l	11/06/03 10:36	WG132202	
-Chloroethyl vinyl ether	< .001	mg/l	11/07/03 10:51	WG132202	
Bromodichloromethane	< .001	mg/l	11/06/03 10:36	WG132202	
Bromodichloromethane	< .001	mg/l	11/07/03 10:51	WG132202	
Bromoform	< .001	mg/l	11/06/03 10:36	WG132202	
Bromoform	< .001	mg/l	11/07/03 10:51	WG132202	
Bromomethane	< .001	mg/l	11/06/03 10:36	WG132202	
Bromomethane	< .001	mg/l	11/07/03 10:51	WG132202	
Carbon Tetrachloride	< .001	mg/l	11/06/03 10:36	WG132202	
Carbon Tetrachloride	< .001	mg/l	11/07/03 10:51	WG132202	
Chlorobenzene	< .001	mg/l	11/06/03 10:36	WG132202	
Chlorobenzene	< .001	mg/l	11/07/03 10:51	WG132202	
Chlorodibromomethane	< .001	mg/l	11/06/03 10:36	WG132202	
Chlorodibromomethane	< .001	mg/l	11/07/03 10:51	WG132202	
Chloroethane	< .001	mg/l	11/06/03 10:36	WG132202	
Chloroethane	< .001	mg/l	11/07/03 10:51	WG132202	
Chloroform	< .005	mg/l	11/06/03 10:36	WG132202	
Chloroform	< .005	mg/l	11/07/03 10:51	WG132202	
Chloromethane	< .001	mg/l	11/06/03 10:36	WG132202	
Chloromethane	< .001	mg/l	11/07/03 10:51	WG132202	
cis-1,2-Dichloroethene	< .001	mg/l	11/06/03 10:36	WG132202	
cis-1,2-Dichloroethene	< .001	mg/l	11/07/03 10:51	WG132202	
cis-1,3-Dichloropropene	< .001	mg/l	11/06/03 10:36	WG132202	
cis-1,3-Dichloropropene	< .001	mg/l	11/07/03 10:51	WG132202	
Dichlorodifluoromethane	< .001	mg/l	11/06/03 10:36	WG132202	
Methylene chloride	< .005	mg/l	11/06/03 10:36	WG132202	
Methylene chloride	< .005	mg/l	11/07/03 10:51	WG132202	
Tetrachloroethene	< .001	mg/l	11/06/03 10:36	WG132202	

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Quality Assurance Report
Level II

March 01, 2004

L133503

Tetrachloroethene <.001 mg/l 11/07/03 10:51 WG132202

Analyte	Result	Units	Date Analyzed	Batch
trans-1,2-Dichloroethene	<.001	mg/l	11/06/03 10:36	WG132202
trans-1,2-Dichloroethene	<.001	mg/l	11/07/03 10:51	WG132202
trans-1,3-Dichloropropene	<.001	mg/l	11/06/03 10:36	WG132202
trans-1,3-Dichloropropene	<.001	mg/l	11/07/03 10:51	WG132202
Trichloroethene	<.001	mg/l	11/06/03 10:36	WG132202
Trichloroethene	<.001	mg/l	11/07/03 10:51	WG132202
Trichlorofluoromethane	<.001	mg/l	11/06/03 10:36	WG132202
Trichlorofluoromethane	<.001	mg/l	11/07/03 10:51	WG132202
Vinyl chloride	<.001	mg/l	11/06/03 10:36	WG132202
Vinyl chloride	<.001	mg/l	11/07/03 10:51	WG132202
TOC (Total Organic Carbon)	< 1	mg/l	11/06/03 07:43	WG132272
Sulfide	< .05	mg/l	11/07/03 15:00	WG132389
Sulfide	< .05	mg/l	11/07/03 15:00	WG132389
Alkalinity	< 10	mg/l	11/10/03 17:15	WG132699

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Chloride	mg/l	70.0	69.8	0.301	20	L133480-05	WG132033
Nitrate	mg/l	0.00	0.00	0.00	20	L133480-05	WG132033
Sulfate	mg/l	1060	1060	0.0276	20	L133480-05	WG132033
Ferrous Iron	mg/l	10.9	11.0	0.574	20	L133503-04	WG132071
Free Carbon Dioxide	mg/l	127	130	2.33	20	L133503-01	WG132119
TOC (Total Organic Carbon)	mg/l	4.92	4.60	6.78	20	L133688-03	WG132272
Sulfide	mg/l	0.104	0.0960	8.38	20	L133479-01	WG132389
Alkalinity	mg/l	215	210	2.23	20	L133479-01	WG132699

Analyte	Units	Laboratory Control Sample	Known Val	Result	% Rec	Limit	Batch
Chloride	mg/l	20	17.4	18.8	90-110	WG132033	
Nitrate	mg/l	4	3.70	92.6	90-110	WG132033	
Sulfate	mg/l	20	18.9	94.4	85-115	WG132033	
Ferrous Iron	mg/l	1	0.960	96.0	85-115	WG132071	
Iron, Dissolved	mg/l	1.13	1.12	99.1	85-115	WG132158	
Manganese, Dissolved	mg/l	1.13	1.16	103.	85-115	WG132158	
1,1,1-Trichloroethane	mg/l	.02	0.0183	91.3	71-122	WG132202	
1,1,2-Tetrachloroethane	mg/l	.02	0.0188	94.1	78-120	WG132202	
1,1,2-Trichloroethane	mg/l	.02	0.0186	93.0	82-117	WG132202	
1,1-Dichloroethane	mg/l	.02	0.0177	88.3	59-135	WG132202	
1,1-Dichloroethene	mg/l	.02	0.0205	103.	60-166	WG132202	
1,2-Dibromoethane	mg/l	.02	0.0194	97.1	79-121	WG132202	
1,2-Dichlorobenzene	mg/l	.02	0.0183	91.3	83-113	WG132202	
1,2-Dichloroethane	mg/l	.02	0.0195	97.4	81-122	WG132202	
1,2-Dichloropropane	mg/l	.02	0.0177	88.7	74-125	WG132202	
1,3-Dichlorobenzene	mg/l	.02	0.0203	101.	80-124	WG132202	
1,4-Dichlorobenzene	mg/l	.02	0.0188	93.9	84-115	WG132202	
-Chloroethyl vinyl ether	mg/l	.1	0.0590	59.0	15-161	WG132202	

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Level II**

L133503

March 01, 2004

Bromodichloromethane mg/l 0.02 0.0185 92.6 76-117 WG132202

Analyte	Laboratory Control	Sample Units	Known Val	Result	% Rec	Limit	Batch
Bromoform	mg/l	.02	0.0179	89.7	72-125	WG132202	
Bromomethane	mg/l	.02	0.0414	207.	25-170	WG132202	
Carbon Tetrachloride	mg/l	.02	0.0184	91.9	65-127	WG132202	
Chlorobenzene	mg/l	.02	0.0195	97.5	79-117	WG132202	
Chlorodibromomethane	mg/l	.02	0.0187	93.6	76-115	WG132202	
Chloroethane	mg/l	.02	0.0139	69.5	37-130	WG132202	
Chloroform	mg/l	.02	0.0177	88.5	70-119	WG132202	
Chloromethane	mg/l	.02	0.0152	75.9	39-109	WG132202	
cis-1,2-Dichloroethene	mg/l	.02	0.0176	88.0	72-128	WG132202	
cis-1,3-Dichloropropene	mg/l	.02	0.0220	110.	86-137	WG132202	
Dichlorodifluoromethane	mg/l	.02	0.0131	65.4	14-133	WG132202	
Ethylene chloride	mg/l	.02	0.0190	95.0	60-127	WG132202	
Tetrachloroethylene	mg/l	.02	0.0189	94.7	71-132	WG132202	
trans-1,2-Dichloroethene	mg/l	.02	0.0210	105.	65-141	WG132202	
trans-1,3-Dichloropropene	mg/l	.02	0.0218	109.	82-132	WG132202	
Trichloroethylene	mg/l	.02	0.0197	98.6	81-129	WG132202	
Trichlorofluoromethane	mg/l	.02	0.0132	66.1	46-94	WG132202	
Vinyl chloride	mg/l	.02	0.0151	75.3	40-95	WG132202	
TOC (Total Organic Carbon)	mg/l	4	4.40	110.	85-115	WG132202	
Sulfide	mg/l	.5	0.560	112.	85-115	WG132389	
Sulfide	mg/l	.5	0.560	112.	85-115	WG132389	
Alkalinity	mg/l	65	63.3	97.4	85-115	WG132699	

Analyte	Laboratory Control	Sample Units	LCSD	Res	Ref Res	Duplicate RPD	Limit	Ref Samp	Batch
Chloride	mg/l	17.88	17.4	2.34	20	R178317-5	WG132033		
Nitrate	mg/l	3.82	3.70	3.05	20	R178317-5	WG132033		
Sulfate	mg/l	18.8	18.9	0.247	20	R178317-5	WG132033		
Ferrous Iron	mg/l	0.960	0.960	0.00	20	WG132071-2	WG132071		
Iron, Dissolved	mg/l	1.10	1.12	1.80	20	R177982-2	WG132158		
Manganese, Dissolved	mg/l	1.13	1.16	2.62	20	R177982-2	WG132158		
1,1,1-Trichloroethane	mg/l	0.0180	0.0183	1.32	28	R177948-3	WG132202		
1,1,2-Tetrachloroethane	mg/l	0.0169	0.0188	11.0	10	R177948-3	WG132202		
1,1,2-Trichloroethane	mg/l	0.0176	0.0186	5.41	16	R177948-3	WG132202		
1,1-Dichloroethane	mg/l	0.0181	0.0177	2.57	17	R177948-3	WG132202		
1,1-Dichloroethene	mg/l	0.0208	0.0205	1.60	36	R177948-3	WG132202		
1,2-Dibromoethane	mg/l	0.0191	0.0194	1.82	19	R177948-3	WG132202		
1,2-Dichlorobenzene	mg/l	0.0174	0.0183	4.77	16	R177948-3	WG132202		
1,2-Dichloroethane	mg/l	0.0188	0.0195	3.50	13	R177948-3	WG132202		
1,2-Dichloropropane	mg/l	0.0177	0.0177	0.452	14	R177948-3	WG132202		
1,3-Dichlorobenzene	mg/l	0.0200	0.0203	1.29	25	R177948-3	WG132202		
4-Dichlorobenzene	mg/l	0.0182	0.0188	3.19	18	R177948-3	WG132202		
-Chloroethyl vinyl ether	mg/l	0.0538	0.0590	9.28	25	R177948-3	WG132202		
Bromodichloromethane	mg/l	0.0180	0.0185	2.79	13	R177948-3	WG132202		
Bromoform	mg/l	0.0175	0.0179	2.48	18	R177948-3	WG132202		
Bromomethane	mg/l	0.0446	0.0414	7.56	20	R177948-3	WG132202		
Carbon Tetrachloride	mg/l	0.0179	0.0184	2.59	36	R177948-3	WG132202		
Chlorobenzene	mg/l	0.0195	0.0195	0.103	21	R177948-3	WG132202		
Chlorodibromomethane	mg/l	0.0186	0.0187	0.858	17	R177948-3	WG132202		
Chloroethane	mg/l	0.0135	0.0139	2.63	25	R177948-3	WG132202		
Chloroform	mg/l	0.0175	0.0177	0.965	26	R177948-3	WG132202		
Chloromethane	mg/l	0.0146	0.0152	3.69	31	R177948-3	WG132202		

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March 01, 2004

cis-1,2-Dichloroethene mg/l 0.0174 0.0176 1.14 1.18 R177948-3 WG132202

Analyte	Laboratory Control		Sample Duplicate		RPD	Limit	Ref Samp	Batch
	Units	LCSD	Res	Ref Res				
cis-1,3-Dichloropropene	mg/l	0.0212	0.0220	3.43	17	R177948-3	WG132202	
Dichlorodifluoromethane	mg/l	0.0132	0.0131	0.762	28	R177948-3	WG132202	
Methylene chloride	mg/l	0.0188	0.0190	1.06	16	R177948-3	WG132202	
Tetrachloroethene	mg/l	0.0185	0.0189	2.51	32	R177948-3	WG132202	
trans-1,2-Dichloroethene	mg/l	0.0205	0.0210	2.80	27	R177948-3	WG132202	
trans-1,3-Dichloropropene	mg/l	0.0205	0.0218	6.20	16	R177948-3	WG132202	
Trichloroethene	mg/l	0.0190	0.0197	3.93	25	R177948-3	WG132202	
Trichlorofluoromethane	mg/l	0.0130	0.0132	1.37	41	R177948-3	WG132202	
Vinyl chloride	mg/l	0.0147	0.0151	2.56	36	R177948-3	WG132202	
TOC (Total Organic Carbon)	mg/l	4.00	4.40	9.52	20	WG132272-2	WG132272	
Sulfide	mg/l	0.542	0.560	3.32	20	WG132389-2	WG132389	
Sulfide	mg/l	0.542	0.560	3.32	20	WG132389-2	WG132389	

Alkalinity mg/l 63.4 63.3 0.245 20 R178178-5 WG132699

Analyte	Matrix Spike		TV	% Rec	Limit	Ref Samp	Batch
	Units	MS Res	Ref Res				
Chloride	mg/l	49.3	44.21	50	90.1	80-120	L133021-02 WG132033
Nitrate	mg/l	4.56	0.00	5	91.2	80-120	L133021-02 WG132033
Sulfate	mg/l	50.1	4.88	50	90.5	80-120	L133021-02 WG132033
1,1,1-Trichloroethane	mg/l	0.0169	0.00	0.02	84.4	46-143	L133309-11 WG132202
1,1,2-Tetrachloroethane	mg/l	0.0175	0.00	0.02	87.7	70-116	L133309-11 WG132202
1,1,2-Trichloroethane	mg/l	0.0167	0.00	0.02	83.7	70-122	L133309-11 WG132202
1,1-Dichloroethane	mg/l	0.0168	0.00	0.02	83.8	47-138	L133309-11 WG132202
1,1-Dichloroethene	mg/l	0.0183	0.00	0.02	91.4	56-162	L133309-11 WG132202
1,2-Dibromoethane	mg/l	0.0178	0.00	0.02	89.0	74-121	L133309-11 WG132202
2-Dichlorobenzene	mg/l	0.0155	0.00	0.02	77.4	65-119	L133309-11 WG132202
2-Dichloroethane	mg/l	0.0187	0.00	0.02	93.6	48-148	L133309-11 WG132202
1,2-Dichloropropane	mg/l	0.0155	0.00	0.02	78.1	66-122	L133309-11 WG132202
1,3-Dichlorobenzene	mg/l	0.0162	0.00	0.02	80.8	62-122	L133309-11 WG132202
4-Dichlorobenzene	mg/l	0.0149	0.00	0.02	74.3	60-123	L133309-11 WG132202
-Chloroethyl vinyl ether	mg/l	0.0014	0.00	0.1	1.1	0-100	L133309-11 WG132202
Bromodichloromethane	mg/l	0.0172	0.00	0.02	86.2	57-126	L133309-11 WG132202
Bromoform	mg/l	0.0168	0.00	0.02	84.2	52-130	L133309-11 WG132202
Bromomethane	mg/l	0.0309	0.00	0.02	154.0	17-150	L133309-11 WG132202
Carbon Tetrachloride	mg/l	0.0170	0.00	0.02	85.1	42-141	L133309-11 WG132202
Chlorobenzene	mg/l	0.0167	0.00	0.02	83.6	66-125	L133309-11 WG132202
Chlorodibromomethane	mg/l	0.0169	0.00	0.02	84.5	58-123	L133309-11 WG132202
Chloroethane	mg/l	0.0115	0.00	0.02	57.5	29-131	L133309-11 WG132202
Chloroform	mg/l	0.0162	0.00	0.02	81.2	46-136	L133309-11 WG132202
Chloromethane	mg/l	0.0117	0.00	0.02	58.5	26-120	L133309-11 WG132202
cis-1,2-Dichloroethene	mg/l	0.0155	0.00	0.02	77.5	59-133	L133309-11 WG132202
cis-1,3-Dichloropropene	mg/l	0.0188	0.00	0.02	93.9	77-132	L133309-11 WG132202
Dichlorodifluoromethane	mg/l	0.0099	0.00	0.02	49.8	13-113	L133309-11 WG132202
Methylene chloride	mg/l	0.0179	0.00	0.02	89.4	55-123	L133309-11 WG132202
Tetrachloroethene	mg/l	0.0152	0.00	0.02	76.2	49-144	L133309-11 WG132202
trans-1,2-Dichloroethene	mg/l	0.0181	0.00	0.02	90.4	53-145	L133309-11 WG132202
trans-1,3-Dichloropropene	mg/l	0.0184	0.0005	0.02	89.5	69-125	L133309-11 WG132202
Trichloroethene	mg/l	0.0170	0.00	0.02	84.9	61-141	L133309-11 WG132202
Trichlorofluoromethane	mg/l	0.0116	0.00	0.02	58.2	24-113	L133309-11 WG132202
Vinyl chloride	mg/l	0.0119	0.00	0.02	59.7	26-110	L133309-11 WG132202
TOC (Total Organic Carbon)	mg/l	26.0	7.00	20	95.0	80-120	L133688-01 WG132272
Sulfide	mg/l	1.10	0.00	1	110.	80-120	L133503-03 WG132389

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Mr. Tom Davis
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Raleigh, NC 27607

Quality Assurance Report
Level II

L133503

March 01, 2004

Sulfide mg/l 1.10 0.00 1 .110 .80-120 L133503-03 WG132389

Analyte	Matrix	Units	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Alkalinity	mg/l	245.	140	150	70.0	80	-120	L133678-01	WG132699

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Chloride	mg/l	54.1	49.3	9.37	20	99.8	L133021-02	WG132033	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Nitrate	mg/l	5.04	4.56	9.97	20	101.	L133021-02	WG132033	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Sulfate	mg/l	54.4	50.1	8.20	20	99.1	L133021-02	WG132033	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,1,1-Trichloroethane	mg/l	0.0233	0.0169	32.0	28	116.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,1,2-Tetrachloroethane	mg/l	0.0230	0.0175	27.0	10	115.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,1-Dichloroethane	mg/l	0.0220	0.0168	27.2	17	110.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,1-Dichloroethene	mg/l	0.0248	0.0183	30.2	36	124.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,2-Dibromoethane	mg/l	0.0227	0.0178	24.1	19	113.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,2-Dichlorobenzene	mg/l	0.0208	0.0155	29.2	16	104.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,2-Dichloroethane	mg/l	0.0237	0.0187	23.5	13	119.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,2-Dichloropropane	mg/l	0.0215	0.0156	31.7	14	108.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,3-Dichlorobenzene	mg/l	0.0222	0.0162	31.5	25	111.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
1,4-Dichlorobenzene	mg/l	0.0203	0.0149	30.8	18	101.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Chloroethyl vinyl ether	mg/l	0.0012	0.0011	8.55	25	112.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Bromodichloromethane	mg/l	0.0230	0.0172	28.5	13	115.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Bromoform	mg/l	0.0222	0.0168	27.5	18	111.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Bromomethane	mg/l	0.0416	0.0309	29.5	20	108.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Carbon Tetrachloride	mg/l	0.0224	0.0170	27.3	36	112.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Chlorobenzene	mg/l	0.0232	0.0167	32.4	21	116.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Chlorodibromomethane	mg/l	0.0223	0.0169	27.6	17	112.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Chloroethane	mg/l	0.0153	0.0115	28.5	25	76.6	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Chloroform	mg/l	0.0221	0.0162	30.6	26	110.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Chloromethane	mg/l	0.0154	0.0117	27.4	31	77.0	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
cis-1,2-Dichloroethene	mg/l	0.0210	0.0155	30.0	18	105.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
cis-1,3-Dichloropropene	mg/l	0.0250	0.0188	28.5	17	125.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Dichlorodifluoromethane	mg/l	0.0133	0.0099	28.9	28	66.7	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Methylene chloride	mg/l	0.0229	0.0179	24.4	16	114.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Tetrachloroethene	mg/l	0.0225	0.0152	38.5	32	113.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
trans-1,2-Dichloroethene	mg/l	0.0246	0.0181	30.5	27	123.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
trans-1,3-Dichloropropene	mg/l	0.0244	0.0184	27.9	16	119.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Trichloroethene	mg/l	0.0234	0.0170	32.0	25	117.	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Trichlorofluoromethane	mg/l	0.0158	0.0116	30.7	41	79.2	L133309-11	WG132202	

Analyte	Matrix	Units	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Vinyl chloride	mg/l	0.0157	0.0119	27.2	36	78.5	L133309-11	WG132202	

TOC (Total Organic Carbon)	mg/l	26.0	26.0	0.00	20	95.0	L133688-01	WG132272
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Sulfide	mg/l	1.10	1.10	0.00	20	110.	L133503-03	WG132389
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Sulfide	mg/l	1.10	1.10	0.00	20	110.	L133503-03	WG132389
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Alkalinity	mg/l	245.	245.	0.0125	20	70.1	L133678-01	WG132699
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Batch number / Run number / Sample number cross reference

WG132071: R177663: L133503-01 02 03 04
 WG132119: R177691: L133503-01 02 03 04
 WG132153: R177722: L133503-01 02 03 04
 WG132272: R177885: L133503-01 02 03 04
 WG132202: R177948: L133503-01 02 03 04
 WG132389: R177981: L133503-01 02 03 04
 WG132158: R177982 R177983: L133503-02 03 04 01
 WG132699: R178178: L133503-01 02 03 04


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Quantum Environmental Inc.
Mr. Tom Davis
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Quality Assurance Report
Level II
L133503

March 01, 2004

WG132033: R178317: L133503-01 02 03 04

* See Attachment B of standard report for list of qualifiers.
* Calculations are performed prior to rounding of reported values


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Raleigh, NC 27607

Quality Assurance Report
Level II
L133503

March 01, 2004

ESC Level 2 Data Package

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Quantum Environmental Inc.

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Raleigh, NC 27607

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody
Page 2 of 2

Report to: Mr. Tom Davis	Email: tDavis@quantumcos.com											Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859												
Project Description: Teer-HRC Monitoring		City/State Collected <i>NC</i>																						
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project #: 0013-94-012	Lab Project # OUANTUM-HRCINJECTI																						
Collected by (print): <i>Tom Davis</i>	Site/Facility ID#:	P.O.#:																						
Collected by (signature): <i>TD</i>	Rush? (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50%	Date Results Needed Email? No <input checked="" type="checkbox"/> Yes FAX? No <input type="checkbox"/> Yes	No. of Cntrs	ALK, Dissolved Mtls 500mlHDPE-NoPres	ETHANE 40mlAmb-NoPres	ETHENE 40mlAmb-NoPres	FERUSFE 250mlAmb-HCl	METHANE 40mlAmb-NoPres	NO3, CO2, SO4, CL 500mlHDPE-NaOH+ZnAc	SULFIDE 500mlHDPE-NaOH+ZnAc	TOC 250mlAmb-Septa-HCl	CoCode: OUANTUM (lab use only) Template/Prelogin T17810/P95446 Cooler #: <i>10/30/03</i> Shipped Via: FedEX Ground <i>CC</i>												
Packed on Rec'd In <i>KA</i>												Remarks/Contaminant Sample # (lab only)												
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	11/4/03 1218	13	X X X X X X X X X X X X	11/4/03 1242	13	X X X X X X X X X X X X	11/4/03 1305	13	X X X X X X X X X X X X	11/4/03 1330	13	X X X X X X X X X X X X	11/4/03 1355	13	X X X X X X X X X X X X	11/4/03 1418	13	X X X X X X X X X X X X	<i>1133503-01</i> <i>-02</i> <i>-03</i> <i>-04</i>
MW-25.1	G	GW																						
MW-25		GW																						
RW-5		GW																						
MW-18		GW																						
MW-29		GW																						
MW-29.1		GW																						

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks: Please note:

Flow _____ Other _____

Ferrous Iron and CO2 have 24 hr hold times.

Nitrate has 48 hr hold time.

Relinquished by: (Signature) <i>John Doe</i>	Date:	Time:	Received by: (Signature) <i>John Doe</i>	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: <i>JH OK</i>
Relinquished by: (Signature) <i>John Doe</i>	Date:	Time:	Received by: (Signature) <i>John Doe</i>	Temp: 22 Bottles Received: 52+1B	
Relinquished by: (Signature) <i>John Doe</i>	Date:	Time:	Received for lab by: (Signature) <i>John Doe</i>	Date: 11/5/03 Time: 9:00	pH Checked: 2.2 NCF: ✓

Quantum Environmental Inc.		Alternate billing information:				Analysis/Container/Preservative				Chain of Custody Page <u>1</u> of <u>2</u>	
6001 Chapel Hill Road, Suite 108 Raleigh, NC 27607											
Report to: Mr. Tom Davis		Email: tdavis@quantumcos.com								Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859	
Project Description: Teer-HRC Monitoring		City/State Collected <i>NC</i>									
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project #: 0013-94-012	Lab Project # OUANTUM-HRCINJECTI									
Collected by (print): <i>Tom Davis</i>	Site/Facility ID#:	P.O.#:									
Collected by (signature): <i>[Signature]</i>	Rush? (Lab MUST Be Notified)	Date Results Needed		No. of Cntrs	V601 40mlAmb-HCl				CoCode: OUANTUM (lab use only) Template/Prelogin T17810/P95446 Cooler #: 10/3/03 Shipped Via: FedEx Ground Cc		
Packed on <i>10/3/03</i>	Same Day 200% Next Day 100% Two Day 50%	Email? No <input checked="" type="checkbox"/> Yes FAX? No <input type="checkbox"/> Yes									
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Remarks/Contaminant Sample # (lab only)				
MW-25	G	GW		14/03	1218	13	X	L133803-01			
MW-25		GW			1242	13	X	-02			
RW-5		GW			1305	13	X				
MW-18		GW			1330	13	X				
MW-29		GW			1355	13	X	-03			
MW-29	Y	GW			1418	13	X	-04			

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks: Please note:

Flow _____ Other _____

Ferrous Iron and CO2 have 24 hr hold times.

Nitrate has 48 hr hold time.

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.2 Bottles Received: 52-1B	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/3/03 Time: 9:00 AM	pH Checked: 62,712 NCF: <input checked="" type="checkbox"/>

ENVIRONMENTAL SCIENCE CORP.

SAMPLE NON-CONFORMANCE FORM

Sample No.: L133503

Date: 11/5/03

Evaluated by: PAUL

Client: QUANTUM

Non-Conformance (check applicable items)

- | | | | |
|--------------------------|--|-------------------------------------|---|
| <input type="checkbox"/> | Chain of Custody is missing | <input checked="" type="checkbox"/> | Login Clarification Needed |
| <input type="checkbox"/> | Improper container type | <input type="checkbox"/> | Improper preservation |
| <input type="checkbox"/> | Chain of custody is incomplete | <input type="checkbox"/> | Container lid not in tact |
| <input type="checkbox"/> | Parameter(s) past holding time | <input type="checkbox"/> | Improper temperature |
| <input type="checkbox"/> | Broken container(s) see below | <input type="checkbox"/> | Broken container: sufficient sample volume remains for analysis requested |
| <input type="checkbox"/> | Insufficient packing material around container | | |
| <input type="checkbox"/> | Insufficient packing material inside cooler | | |
| <input type="checkbox"/> | Improper handling by carrier (FedEx / UPS / Courier) | | |
| <input type="checkbox"/> | Sample was frozen | | |

Comments: DID NOT RECEIVE RW-S OR MW-18

Log In Instructions:

TSR Initials: Cb

Client informed by call email / fax / voice mail date: 11/7/03 time: 1409 11/4 1137
Client contact: 11/6 LVM

Process as is

Appendix F

Appendix F

January 2004

**Laboratory Analytical Results
and
Chain of Custody**



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REPORT OF ANALYSIS

January 23, 2004

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : January 15, 2004
Description : Teer-HRC Monitoring

Site ID :

Sample ID : MW-18

Project # : 0013-94-012

Collected By : Tom Davis
Collection Date : 01/14/04 14:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	10.	mg/l		01/20/04	1
Butyric Acid	BDL	25.	mg/l		01/19/04	1
Lactic Acid	BDL	10.	mg/l		01/17/04	1
Propionic Acid	BDL	10.	mg/l		01/16/04	1
Pyruvic Acid	BDL	10.	mg/l		01/20/04	1


Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit(EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 01/23/04 09:59 Printed: 01/23/04 13:02
L141014-01 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

January 23, 2004

Date Received : January 15, 2004
Description : Teer-HRC Monitoring
Sample ID : MW-29
Collected By : Tom Davis
Collection Date : 01/14/04 13:50

ESC Sample # : L141014-02

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	10.	mg/l		01/20/04	1
Butyric Acid	BDL	25.	mg/l		01/19/04	1
Lactic Acid	BDL	10.	mg/l		01/17/04	1
Propionic Acid	BDL	10.	mg/l		01/16/04	1
Pyruvic Acid	BDL	10.	mg/l		01/20/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

The reported analytical results relate only to the sample submitted.

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Reported: 01/23/04 09:59 Printed: 01/23/04 13:02

L141014-02 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.

Cheli Boucher
Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

January 23, 2004

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : January 15, 2004
Description : Teer-HRC Monitoring

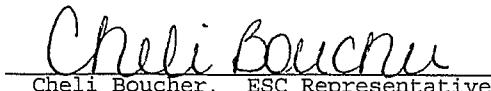
Site ID :

Sample ID : MW-29I

Project # : 0013-94-012

Collected By : Tom Davis
Collection Date : 01/14/04 14:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	10.	mg/l		01/20/04	1
Butyric Acid	BDL	25.	mg/l		01/19/04	1
Lactic Acid	BDL	10.	mg/l		01/17/04	1
Propionic Acid	BDL	10.	mg/l		01/16/04	1
Pyruvic Acid	BDL	10.	mg/l		01/20/04	1


Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Reported: 01/23/04 09:59 Printed: 01/23/04 13:02
L141014-03 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.



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Tax I.D. 62-0814289

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

January 23, 2004

Date Received : January 15, 2004
Description : Teer-HRC Monitoring
Sample ID : MW-25
Collected By : Tom Davis
Collection Date : 01/14/04 12:50

ESC Sample # : L141014-04
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	10.	mg/l		01/20/04	1
Butyric Acid	BDL	25.	mg/l		01/19/04	1
Lactic Acid	BDL	10.	mg/l		01/17/04	1
Propionic Acid	BDL	10.	mg/l		01/16/04	1
Pyruvic Acid	BDL	10.	mg/l		01/20/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L141014-04 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.

Cheli Boucher

Cheli Boucher, ESC Representative



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

January 23, 2004

Date Received : January 15, 2004 ESC Sample # : L141014-05
Description : Teer-HRC Monitoring Site ID :
Sample ID : MW-25I Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 01/14/04 13:20

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	10.	mg/l		01/20/04	1
Butyric Acid	BDL	25.	mg/l		01/19/04	1
Lactic Acid	BDL	10.	mg/l		01/17/04	1
Propionic Acid	BDL	10.	mg/l		01/16/04	1
Pyruvic Acid	BDL	10.	mg/l		01/20/04	1

Cheli Boucher
Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L141014-05 (ORG_ACIDS) - Subcontracted to Analytical Services, Inc.



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REPORT OF ANALYSIS

January 23, 2004

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Date Received : January 15, 2004
Description : Teer-HRC Monitoring

ESC Sample # : L141014-06

Sample ID : RW-5

Site ID :

Collected By : Tom Davis
Collection Date : 01/14/04 12:35

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Acetic Acid	BDL	10.	mg/l		01/20/04	1
Butyric Acid	BDL	25.	mg/l		01/19/04	1
Lactic Acid	BDL	10.	mg/l		01/17/04	1
Propionic Acid	BDL	10.	mg/l		01/17/04	1
Pyruvic Acid	BDL	10.	mg/l		01/20/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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L141014-06 (ORG ACIDS) - Subcontracted to Analytical Services, Inc.

Cheli Boucher
Cheli Boucher, ESC Representative

Quantum Environmental Inc.

6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Alternate billing information:

Analysis/Container/Preservative

Chain of Custody
Page 1 of 1

Report to:
Mr. Tom Davis

Email:
tdavis@quantumcos.com

Project Description: **Teer-HRC Monitoring**

City/State
Collected
NC

Phone: (919) 852-3595
FAX: (919) 852-1997

Client Project #:
0013-94-012

Lab Project #
OUANTUM-HRCINJECTI

Collected by (print):
Tom Davis

Site/Facility ID#:

P.O.#:

Collected by (signature):
TD

Rush? (Lab MUST Be Notified)

Date Results Needed

No.
of
Cntrs

SUB-ORG ACIDS 40mlClr-NoPres

Packed on ice X Y

Same Day 200%
Next Day 100%
Two Day 50%

Email? No Yes
FAX? No Yes

CoCode: **OUANTUM** (lab use only)
Template/Prelogin **T17811/P100494**
Cooler #: **1015103** *Re*
Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time		Remarks/Contaminant	Sample # (lab only)
MW-18	G	GW		11/14/04	1445	2 X		L14104-01
MW-29		GW			1350	2 X		02
MW-29I	I	GW			1420	2 X		03
MW-25	I	GW			1250	2 X		04
MW-25I	I	GW			1320	2 X		05
RW-5	I	GW			1235	2 X		06

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks:

Flow _____ Other _____

Relinquished by: (Signature)	Date: 11/14/04	Time: 1530	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: <i>06</i>	(lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 23°C	Bottles Received: 12+TS	
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/15/04	Time: 09:30	pH Checked: NCF:



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : January 15, 2004 ESC Sample # : L141004-01
Description : Teer-HRC Monitoring Site ID :
Sample ID : MW-18 Project # : 0013-94-012
Collected By : Tom Davis
Collection Date : 01/14/04 14:45

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	3300	1000	ppb	8015M	01/15/04	1
Chloride	3200	1000	ug/l	9056	01/15/04	1
Nitrate	BDL	100	ug/l	9056	01/15/04	1
Sulfate	BDL	5000	ug/l	9056	01/15/04	1
Alkalinity	470000	20000	ug/l	310.2	01/15/04	2
Free Carbon Dioxide	240000	20000	ug/l	406B	01/15/04	2
Ethane	BDL	100	ppb	8015M	01/15/04	1
Ethene	BDL	100	ppb	8015M	01/15/04	1
Ferrous Iron	12000	2500	ug/l	3500Fe-B	01/15/04	50
Sulfide	BDL	50.	ug/l	9030B	01/16/04	1
TOC (Total Organic Carbon)	7100	1000	ug/l	9060	01/15/04	1
Iron, Dissolved	7500	50.	ug/l	6010B	01/19/04	1
Manganese, Dissolved	4000	10.	ug/l	6010B	01/19/04	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Bromoform	BDL	1.0	ug/l	601MS	01/16/04	1
Bromomethane	BDL	1.0	ug/l	601MS	01/16/04	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	01/16/04	1
Chloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	01/16/04	1
Chloroform	BDL	1.0	ug/l	601MS	01/16/04	1
Chloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : January 15, 2004
Description : Teer-HRC Monitoring

Sample ID : MW-18

Collected By : Tom Davis
Collection Date : 01/14/04 14:45

ESC Sample # : L141004-01

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	01/16/04	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
Methylene chloride	BDL	5.0	ug/l	601MS	01/16/04	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Trichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Vinyl chloride	BDL	1.0	ug/l	601MS	01/16/04	1

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	January 15, 2004	ESC Sample # :	L141004-02
Description :	Teer-HRC Monitoring	Site ID :	
Sample ID :	MW-29	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	01/14/04 13:50		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	BDL	1000	ppb	8015M	01/15/04	1
Chloride	BDL	1000	ug/l	9056	01/15/04	1
Nitrate	BDL	100	ug/l	9056	01/15/04	1
Sulfate	12000	5000	ug/l	9056	01/15/04	1
Alkalinity	180000	10000	ug/l	310.2	01/15/04	1
Free Carbon Dioxide	18000	10000	ug/l	406B	01/15/04	1
Ethane	BDL	100	ppb	8015M	01/15/04	1
Ethene	BDL	100	ppb	8015M	01/15/04	1
Ferrous Iron	560	50.	ug/l	3500Fe-B	01/15/04	1
Sulfide	BDL	50.	ug/l	9030B	01/16/04	1
TOC (Total Organic Carbon)	4300	1000	ug/l	9060	01/15/04	1
Iron, Dissolved	BDL	50.	ug/l	6010B	01/19/04	1
Manganese, Dissolved	110	10.	ug/l	6010B	01/19/04	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Bromoform	BDL	1.0	ug/l	601MS	01/16/04	1
Bromomethane	BDL	1.0	ug/l	601MS	01/16/04	1
Carbon Tetrachloride	3.0	1.0	ug/l	601MS	01/16/04	1
Chlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorodibromométhane	BDL	1.0	ug/l	601MS	01/16/04	1
Chloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	01/16/04	1
Chloroform	BDL	1.0	ug/l	601MS	01/16/04	1
Chloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : January 15, 2004
Description : Teer-HRC Monitoring

Sample ID : MW-29

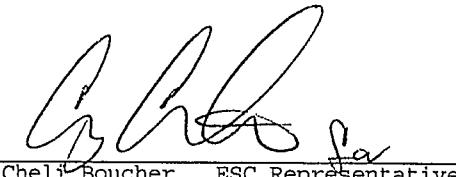
Collected By : Tom Davis
Collection Date : 01/14/04 13:50

ESC Sample # : L141004-02

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,1-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
cis-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	01/16/04	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
Methylene chloride	BDL	5.0	ug/l	601MS	01/16/04	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,1,1-Trichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Trichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Vinyl chloride	BDL	1.0	ug/l	601MS	01/16/04	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : January 15, 2004
Description : Teer-HRC Monitoring
Sample ID : MW-29 I
Collected By : Tom Davis
Collection Date : 01/14/04 14:20

ESC Sample # : L141004-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1700	1000	ppb	8015M	01/15/04	1
Chloride	6000	1000	ug/l	9056	01/15/04	1
Nitrate	BDL	100	ug/l	9056	01/15/04	1
Sulfate	6600	5000	ug/l	9056	01/15/04	1
Alkalinity	460000	50000	ug/l	310.2	01/15/04	5
Free Carbon Dioxide	140000	50000	ug/l	406B	01/15/04	5
Ethane	BDL	100	ppb	8015M	01/15/04	1
Ethene	BDL	100	ppb	8015M	01/15/04	1
Ferrous Iron	12000	2500	ug/l	3500Fe-B	01/15/04	50
Sulfide	59.	50.	ug/l	9030B	01/16/04	1
TOC (Total Organic Carbon)	15000	1000	ug/l	9060	01/15/04	1
Iron, Dissolved	1300	50.	ug/l	6010B	01/19/04	1
Manganese, Dissolved	7800	10.	ug/l	6010B	01/19/04	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Bromoform	BDL	1.0	ug/l	601MS	01/16/04	1
Bromomethane	BDL	1.0	ug/l	601MS	01/16/04	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	01/16/04	1
Chloroethane	9.9	1.0	ug/l	601MS	01/16/04	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	01/16/04	1
Chloroform	BDL	1.0	ug/l	601MS	01/16/04	1
Chloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : January 15, 2004
Description : Teer-HRC Monitoring
Sample ID : MW-29 I
Collected By : Tom Davis
Collection Date : 01/14/04 14:20

ESC Sample # : L141004-03

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	66.	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,1-Dichloroethene	6.7	1.0	ug/l	601MS	01/16/04	1
cis-1,2-Dichloroethene	3.5	1.0	ug/l	601MS	01/16/04	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	01/16/04	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
Methylene chloride	BDL	5.0	ug/l	601MS	01/16/04	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,1,1-Trichloroethane	21.	1.0	ug/l	601MS	01/16/04	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Trichloroethene	2.2	1.0	ug/l	601MS	01/16/04	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Vinyl chloride	41.	1.0	ug/l	601MS	01/16/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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Cheli Boucher, ESC Representative



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Tax I.D. 62-0814289

Est. 1970

REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	January 15, 2004	ESC Sample # :	L141004-04
Description :	Teer-HRC Monitoring	Site ID :	
Sample ID :	MW-25	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	01/14/04 12:50		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1500	1000	ppb	8015M	01/15/04	1
Chloride	14000	1000	ug/l	9056	01/15/04	1
Nitrate	BDL	100	ug/l	9056	01/15/04	1
Sulfate	BDL	5000	ug/l	9056	01/15/04	1
Alkalinity	500000	50000	ug/l	310.2	01/15/04	5
Free Carbon Dioxide	160000	50000	ug/l	406B	01/15/04	5
Ethane	BDL	100	ppb	8015M	01/15/04	1
Ethene	BDL	100	ppb	8015M	01/15/04	1
Ferrous Iron	15000	2500	ug/l	3500Fe-B	01/15/04	50
Sulfide	BDL	50.	ug/l	9030B	01/16/04	1
TOC (Total Organic Carbon)	11000	1000	ug/l	9060	01/15/04	1
Iron, Dissolved	650	50.	ug/l	6010B	01/19/04	1
Manganese, Dissolved	9500	10.	ug/l	6010B	01/19/04	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Bromoform	BDL	1.0	ug/l	601MS	01/16/04	1
Bromomethane	BDL	1.0	ug/l	601MS	01/16/04	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorodibromométhane	BDL	1.0	ug/l	601MS	01/16/04	1
Chloroethane	68.	1.0	ug/l	601MS	01/16/04	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	01/16/04	1
Chloroform	BDL	1.0	ug/l	601MS	01/16/04	1
Chloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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March 01, 2004

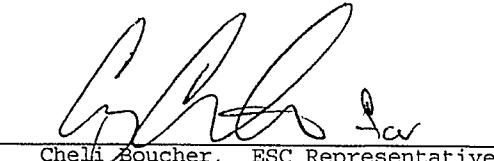
Date Received : January 15, 2004
Description : Teer-HRC Monitoring
Sample ID : MW-25
Collected By : Tom Davis
Collection Date : 01/14/04 12:50

ESC Sample # : L141004-04

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	48.	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,1-Dichloroethene	4.1	1.0	ug/l	601MS	01/16/04	1
cis-1,2-Dichloroethene	2.0	1.0	ug/l	601MS	01/16/04	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	01/16/04	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
Methylene chloride	BDL	5.0	ug/l	601MS	01/16/04	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,1,1-Trichloroethane	7.2	1.0	ug/l	601MS	01/16/04	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Trichloroethene	1.5	1.0	ug/l	601MS	01/16/04	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Vinyl chloride	34.	1.0	ug/l	601MS	01/16/04	1



Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

Note:

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : January 15, 2004
Description : Teer-HRC Monitoring
Sample ID : MW-25 I
Collected By : Tom Davis
Collection Date : 01/14/04 13:20

ESC Sample # : L141004-05

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1400	1000	ppb	8015M	01/15/04	1
Chloride	13000	1000	ug/l	9056	01/15/04	1
Nitrate	BDL	100	ug/l	9056	01/15/04	1
Sulfate	8200	5000	ug/l	9056	01/15/04	1
Alkalinity	450000	50000	ug/l	310.2	01/15/04	5
Free Carbon Dioxide	110000	50000	ug/l	406B	01/15/04	5
Ethane	BDL	100	ppb	8015M	01/15/04	1
Ethene	BDL	100	ppb	8015M	01/15/04	1
Ferrous Iron	980	50.	ug/l	3500Fe-B	01/15/04	1
Sulfide	BDL	50.	ug/l	9030B	01/16/04	1
TOC (Total Organic Carbon)	12000	1000	ug/l	9060	01/15/04	1
Iron, Dissolved	BDL	50.	ug/l	6010B	01/19/04	1
Manganese, Dissolved	7200	10.	ug/l	6010B	01/19/04	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Bromoform	BDL	1.0	ug/l	601MS	01/16/04	1
Bromomethane	BDL	1.0	ug/l	601MS	01/16/04	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorodibromomethane	BDL	1.0	ug/l	601MS	01/16/04	1
Chloroethane	130	1.0	ug/l	601MS	01/16/04	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	01/16/04	1
Chloroform	BDL	1.0	ug/l	601MS	01/16/04	1
Chloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT - PH-0197, FL - E87487, GA - 923, IN - C-TN-01
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Raleigh, NC 27607

March 01, 2004

Date Received : January 15, 2004
Description : Teer-HRC Monitoring
Sample ID : MW-25 I
Collected By : Tom Davis
Collection Date : 01/14/04 13:20

ESC Sample # : L141004-05
Site ID :
Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	70.	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,1-Dichloroethene	3.8	1.0	ug/l	601MS	01/16/04	1
cis-1,2-Dichloroethene	2.1	1.0	ug/l	601MS	01/16/04	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	01/16/04	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
Methylene chloride	BDL	5.0	ug/l	601MS	01/16/04	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,1,1-Trichloroethane	8.1	1.0	ug/l	601MS	01/16/04	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Trichloroethene	2.0	1.0	ug/l	601MS	01/16/04	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Vinyl chloride	72.	1.0	ug/l	601MS	01/16/04	1



Cheld Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233

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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received :	January 15, 2004	ESC Sample # :	L141004-06
Description :	Teer-HRC Monitoring	Site ID :	
Sample ID :	RW-5	Project # :	0013-94-012
Collected By :	Tom Davis		
Collection Date :	01/14/04 12:35		

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
Methane	1200	1000	ppb	8015M	01/15/04	1
Chloride	22000	1000	ug/l	9056	01/15/04	1
Nitrate	BDL	100	ug/l	9056	01/15/04	1
Sulfate	12000	5000	ug/l	9056	01/15/04	1
Alkalinity	440000	50000	ug/l	310.2	01/15/04	5
Free Carbon Dioxide	70000	50000	ug/l	406B	01/15/04	5
Ethane	BDL	100	ppb	8015M	01/15/04	1
Ethene	BDL	100	ppb	8015M	01/15/04	1
Ferrous Iron	8400	1200	ug/l	3500Fe-B	01/15/04	25
Sulfide	BDL	50.	ug/l	9030B	01/16/04	1
TOC (Total Organic Carbon)	5800	1000	ug/l	9060	01/15/04	1
Iron, Dissolved	360	50.	ug/l	6010B	01/19/04	1
Manganese, Dissolved	7800	10.	ug/l	6010B	01/19/04	1
Volatile Organics						
Bromodichloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Bromoform	BDL	1.0	ug/l	601MS	01/16/04	1
Bromomethane	BDL	1.0	ug/l	601MS	01/16/04	1
Carbon Tetrachloride	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Chlorodibromométhane	BDL	1.0	ug/l	601MS	01/16/04	1
Chloroethane	54.	1.0	ug/l	601MS	01/16/04	1
2-Chloroethyl vinyl ether	BDL	50.	ug/l	601MS	01/16/04	1
Chloroform	BDL	1.0	ug/l	601MS	01/16/04	1
Chloromethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dibromoethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,3-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
1,4-Dichlorobenzene	BDL	1.0	ug/l	601MS	01/16/04	1
Dichlorodifluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

A2LA - 1461-01, AIHA - 100789, AL - 40660, CA - I-2327, CT- PH-0197, FL - E87487, GA - 923, IN - C-TN-01
KY - 90010, KYUST - 0016, NC - ENV375, DW21704, ND - R-140, SC - 84004, TN - 2006, VA - 00109, WV - 233



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REPORT OF ANALYSIS

Mr. Tom Davis
Quantum Environmental Inc.
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

March 01, 2004

Date Received : January 15, 2004
Description : Teer-HRC Monitoring
Sample ID : RW-5
Collected By : Tom Davis
Collection Date : 01/14/04 12:35

ESC Sample # : L141004-06

Site ID :

Project # : 0013-94-012

Parameter	Result	Det. Limit	Units	Method	Date	Dil.
1,1-Dichloroethane	42.	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
1,1-Dichloroethene	3.7	1.0	ug/l	601MS	01/16/04	1
cis-1,2-Dichloroethene	1.9	1.0	ug/l	601MS	01/16/04	1
trans-1,2-Dichloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,2-Dichloropropane	BDL	1.0	ug/l	601MS	01/16/04	1
cis-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
trans-1,3-Dichloropropene	BDL	1.0	ug/l	601MS	01/16/04	1
Methylene chloride	BDL	5.0	ug/l	601MS	01/16/04	1
1,1,2,2-Tetrachloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Tetrachloroethene	BDL	1.0	ug/l	601MS	01/16/04	1
1,1,1-Trichloroethane	7.1	1.0	ug/l	601MS	01/16/04	1
1,1,2-Trichloroethane	BDL	1.0	ug/l	601MS	01/16/04	1
Trichloroethene	1.9	1.0	ug/l	601MS	01/16/04	1
Trichlorofluoromethane	BDL	1.0	ug/l	601MS	01/16/04	1
Vinyl chloride	29.	1.0	ug/l	601MS	01/16/04	1

Cheli Boucher, ESC Representative

BDL - Below Detection Limit

Det. Limit - Estimated Quantitation Limit (EQL)

Laboratory Certification Numbers:

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Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L141004-01	Chloride	J4
	Iron, Dissolved	V
	Bromodichloromethane	J3
	Chlorodibromomethane	J3
	1,2-Dichlorobenzene	J4J3
	1,4-Dichlorobenzene	J3
	Dichlorodifluoromethane	J3
	1,1-Dichloroethane	J3
	1,2-Dichloroethane	J3
	cis-1,2-Dichloroethene	J3
	trans-1,2-Dichloroethene	J3
	1,2-Dichloropropane	J3
	cis-1,3-Dichloropropene	J3
	trans-1,3-Dichloropropene	J3
	Methylene chloride	J3
	1,1,2,2-Tetrachloroethane	J3
	1,1,2-Trichloroethane	J3
L141004-02	Chloride	J4
	Bromodichloromethane	J3
	Chlorodibromomethane	J3
	1,2-Dichlorobenzene	J4J3
	1,4-Dichlorobenzene	J3
	Dichlorodifluoromethane	J3
	1,1-Dichloroethane	J3
	1,2-Dichloroethane	J3
	cis-1,2-Dichloroethene	J3
	trans-1,2-Dichloroethene	J3
	1,2-Dichloropropane	J3
	cis-1,3-Dichloropropene	J3
	trans-1,3-Dichloropropene	J3
	Methylene chloride	J3
	1,1,2,2-Tetrachloroethane	J3
	1,1,2-Trichloroethane	J3
L141004-03	Chloride	J4
	Bromodichloromethane	J3
	Chlorodibromomethane	J3
	1,2-Dichlorobenzene	J4J3
	1,4-Dichlorobenzene	J3
	Dichlorodifluoromethane	J3
	1,1-Dichloroethane	J3
	1,2-Dichloroethane	J3
	cis-1,2-Dichloroethene	J3
	trans-1,2-Dichloroethene	J3
	1,2-Dichloropropane	J3
	cis-1,3-Dichloropropene	J3
	trans-1,3-Dichloropropene	J3
	Methylene chloride	J3
	1,1,2,2-Tetrachloroethane	J3
	1,1,2-Trichloroethane	J3
L141004-04	Chloride	J4
	Bromodichloromethane	J3
	Chlorodibromomethane	J3
	1,2-Dichlorobenzene	J4J3
	1,4-Dichlorobenzene	J3
	Dichlorodifluoromethane	J3
	1,1-Dichloroethane	J3
	1,2-Dichloroethane	J3
	cis-1,2-Dichloroethene	J3
	trans-1,2-Dichloroethene	J3
	1,2-Dichloropropane	J3
	cis-1,3-Dichloropropene	J3
	trans-1,3-Dichloropropene	J3
	Methylene chloride	J3
	1,1,2,2-Tetrachloroethane	J3
	1,1,2-Trichloroethane	J3
L141004-05	Chloride	J4
	Bromodichloromethane	J3
	Chlorodibromomethane	J3
	1,2-Dichlorobenzene	J4J3

Attachment A
List of Analytes with QC Qualifiers

Sample #	Analyte	Qualifier
L141004-06	1,4-Dichlorobenzene	J3
	Dichlorodifluoromethane	J3
	1,1-Dichloroethane	J3
	1,2-Dichloroethane	J3
	cis-1,2-Dichloroethene	J3
	trans-1,2-Dichloroethene	J3
	1,2-Dichloropropane	J3
	cis-1,3-Dichloropropene	J3
	trans-1,3-Dichloropropene	J3
	Methylene chloride	J3
	1,1,2,2-Tetrachloroethane	J3
	1,1,2-Trichloroethane	J3
	Chloride	J4
	Bromodichloromethane	J3
	Chlorodibromomethane	J3
	1,2-Dichlorobenzene	J4J3
	1,4-Dichlorobenzene	J3
	Dichlorodifluoromethane	J3
	1,1-Dichloroethane	J3
	1,2-Dichloroethane	J3
	cis-1,2-Dichloroethene	J3
	trans-1,2-Dichloroethene	J3
	1,2-Dichloropropane	J3
	cis-1,3-Dichloropropene	J3
	trans-1,3-Dichloropropene	J3
	Methylene chloride	J3
	1,1,2,2-Tetrachloroethane	J3
	1,1,2-Trichloroethane	J3

Attachment B
Explanation of QC Qualifier Codes

Qualifier	Meaning
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
V	(ESC) - Additional QC Info: The sample concentration is too high to evaluate accurate spike recoveries.

Qualifier Report Information

ESC utilizes sample and result qualifiers as set forth by the EPA Contract Laboratory Program and as required by most certifying bodies including NELAC. In addition to the EPA qualifiers adopted by ESC, we have implemented ESC qualifiers to provide more information pertaining to our analytical results. Each qualifier is designated in the qualifier explanation as either EPA or ESC. Data qualifiers are intended to provide the ESC client with more detailed information concerning the potential bias of reported data. Because of the wide range of constituents and variety of matrices incorporated by most EPA methods, it is common for some compounds to fall outside of established ranges. These exceptions are evaluated and all reported data is valid and useable unless qualified as 'R' (Rejected).

Definitions

Accuracy - The relationship of the observed value of a known sample to the true value of a known sample. Represented by percent recovery and relevant to samples such as: control samples, matrix spike recoveries, surrogate recoveries, etc.

Precision - The agreement between a set of samples or between duplicate samples. Relates to how close together the results are and is represented by Relative Percent Difference.

Surrogate - Organic compounds that are similar in chemical composition, extraction, and chromatography to analytes of interest. The surrogates are used to determine the probable response of the group of analytes that are chemically related to the surrogate compound. Surrogates are added to the sample and carried through all stages of preparation and analyses.

Control Limits

2-Fluorophenol	31-119	Nitrobenzene-d5	43-118	Dibromfluoromethane	79-126	83-119
Phenol-d5	12-134	2-Fluorobiphenyl	45-128	Toluene-d8	81-114	82-116
2,4,6-Tribromophenol	51-141	Terphenyl-d14	43-137	4-Bromofluorobenzene	65-129	72-126

TIC - Tentatively Identified Compound: Compounds detected in samples that are not target compounds, internal standards, system monitoring compounds, or surrogates.

Summary of Remarks For Samples Printed
03/01/04 at 13:17:06

TSR Signing Reports: 070
R5 - Desired TAT

Sample: L141004-01 Account: QUANTUM Received: 01/15/04 09:30 Due Date: 01/22/04 00:00 RPT Date: 01/20/04 09:34
Sample: L141004-02 Account: QUANTUM Received: 01/15/04 09:30 Due Date: 01/22/04 00:00 RPT Date: 01/20/04 09:34
Sample: L141004-03 Account: QUANTUM Received: 01/15/04 09:30 Due Date: 01/22/04 00:00 RPT Date: 01/20/04 09:34
Sample: L141004-04 Account: QUANTUM Received: 01/15/04 09:30 Due Date: 01/22/04 00:00 RPT Date: 01/20/04 09:34
Sample: L141004-05 Account: QUANTUM Received: 01/15/04 09:30 Due Date: 01/22/04 00:00 RPT Date: 01/20/04 09:34
Sample: L141004-06 Account: QUANTUM Received: 01/15/04 09:30 Due Date: 01/22/04 00:00 RPT Date: 01/20/04 09:34

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**Quality Assurance Report
Level II**

L141004

March 01, 2004

Analyte	Result	Laboratory Blank	Units	Date Analyzed	Batch
Chloride	< 1		mg/l	01/15/04 18:08	WG140525
Nitrate	< .1		mg/l	01/15/04 18:08	WG140525
Sulfate	< 5		mg/l	01/15/04 18:08	WG140525
Ferrous Iron	< .05		mg/l	01/15/04 12:15	WG140585
TOC (Total Organic Carbon)	< 1		mg/l	01/15/04 13:17	WG140588
Free Carbon Dioxide	< 10		mg/l	01/15/04 17:30	WG140619
Alkalinity	< 10		mg/l	01/15/04 17:59	WG140634
Iron, Dissolved	< .05		mg/l	01/19/04 19:45	WG140672
Manganese, Dissolved	< .01		mg/l	01/19/04 19:45	WG140672
1,1,1-Trichloroethane	< .001		mg/l	01/15/04 15:46	WG140673
1,1,2,2-Tetrachloroethane	< .001		mg/l	01/15/04 15:46	WG140673
1,1,2-Trichloroethane	< .001		mg/l	01/15/04 15:46	WG140673
1,1-Dichloroethane	< .001		mg/l	01/15/04 15:46	WG140673
1,1-Dichloroethene	< .001		mg/l	01/15/04 15:46	WG140673
1,2-Dibromoethane	< .001		mg/l	01/15/04 15:46	WG140673
1,2-Dichlorobenzene	< .001		mg/l	01/15/04 15:46	WG140673
1,2-Dichloroethane	< .001		mg/l	01/15/04 15:46	WG140673
1,2-Dichloropropane	< .001		mg/l	01/15/04 15:46	WG140673
1,3-Dichlorobenzene	< .001		mg/l	01/15/04 15:46	WG140673
1,4-Dichlorobenzene	< .001		mg/l	01/15/04 15:46	WG140673
3-Chloroethyl vinyl ether	< .001		mg/l	01/15/04 15:46	WG140673
Bromodichloromethane	< .001		mg/l	01/15/04 15:46	WG140673
Bromoform	< .001		mg/l	01/15/04 15:46	WG140673
Bromomethane	< .001		mg/l	01/15/04 15:46	WG140673
Carbon Tetrachloride	< .001		mg/l	01/15/04 15:46	WG140673
Chlorobenzene	< .001		mg/l	01/15/04 15:46	WG140673
Chlorodibromomethane	< .001		mg/l	01/15/04 15:46	WG140673
Chloroethane	< .001		mg/l	01/15/04 15:46	WG140673
Chloroform	< .005		mg/l	01/15/04 15:46	WG140673
Chloromethane	< .001		mg/l	01/15/04 15:46	WG140673
cis-1,2-Dichloroethene	< .001		mg/l	01/15/04 15:46	WG140673
cis-1,3-Dichloropropene	< .001		mg/l	01/15/04 15:46	WG140673
Dichlorodifluoromethane	< .001		mg/l	01/15/04 15:46	WG140673
Methylene chloride	< .005		mg/l	01/15/04 15:46	WG140673
Tetrachloroethene	< .001		mg/l	01/15/04 15:46	WG140673
trans-1,2-Dichloroethene	< .001		mg/l	01/15/04 15:46	WG140673
trans-1,3-Dichloropropene	< .001		mg/l	01/15/04 15:46	WG140673
Trichloroethene	< .001		mg/l	01/15/04 15:46	WG140673
Trichlorofluoromethane	< .001		mg/l	01/15/04 15:46	WG140673
Vinyl chloride	< .001		mg/l	01/15/04 15:46	WG140673
Sulfide	< .05		mg/l	01/16/04 15:00	WG140829

Analyte	Units	Result	Duplicate	RPD	Limit	Ref Samp	Batch
Chloride	mg/l	705.	0.00	200.	20	L141005-03	WG140525
Nitrate	mg/l	0.00	0.00	0.00	20	L141005-03	WG140525
Sulfate	mg/l	40.8	41.0	0.585	20	L141005-03	WG140525
Ferrous Iron	mg/l	12.7	12.0	5.67	20	L141004-01	WG140585
TOC (Total Organic Carbon)	mg/l	0.00	0.00	0.00	20	L140971-02	WG140588

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Quality Assurance Report

Level II

L141004

March 01, 2004

Free Carbon Dioxide	mg/l	119.	120.	0.837	20	L141005-02	WG140619
Analyte	Units	Duplicate	Duplicate	RPD	Limit	Ref Samp	Batch
Alkalinity	mg/l	169	170	0.791	20	L140709-01	WG140634
Sulfide	mg/l	0.0848	0.0770	9.64	20	L141005-03	WG140829
Analyte	Units	Laboratory Control Sample	Known Val	Result	% Rec	Limit	Batch
Chloride	mg/l	20	16.8	83.8	90-110	WG140525	
Nitrate	mg/l	4	3.68	92.0	90-110	WG140525	
Sulfate	mg/l	20	17.7	88.6	85-115	WG140525	
Ferrous Iron	mg/l	1	0.970	97.0	85-115	WG140585	
TOC (Total Organic Carbon)	mg/l	4.4	4.40	110	85-115	WG140588	
Alkalinity	mg/l	50	51.3	103.	85-115	WG140634	
Iron, Dissolved	mg/l	1	1.01	101.	85-115	WG140672	
Manganese, Dissolved	mg/l	1	1.02	102.	85-115	WG140672	
1,1,1-Trichloroethane	mg/l	.02	0.0164	81.9	71-122	WG140673	
1,1,2-Tetrachloroethane	mg/l	.02	0.0175	87.5	78-120	WG140673	
1,1,2-Trichloroethane	mg/l	.02	0.0171	85.7	82-117	WG140673	
1,1-Dichloroethane	mg/l	.02	0.0167	83.7	59-135	WG140673	
1,1-Dichloroethene	mg/l	.02	0.0157	78.4	60-166	WG140673	
1,2-Dibromoethane	mg/l	.02	0.0169	84.6	79-121	WG140673	
1,2-Dichlorobenzene	mg/l	.05	0.0166	33.1	83-113	WG140673	
1,2-Dichloroethane	mg/l	.02	0.0173	86.7	81-122	WG140673	
1,2-Dichloropropane	mg/l	.02	0.0170	85.2	74-125	WG140673	
1,3-Dichlorobenzene	mg/l	.05	0.0170	34.0	80-124	WG140673	
1,4-Dichlorobenzene	mg/l	.05	0.0169	33.9	84-115	WG140673	
1-Chloroethyl Vinyl ether	mg/l	1.00	0.0992	99.2	15-161	WG140673	
Bromodichloromethane	mg/l	.02	0.0174	87.1	76-117	WG140673	
Bromoform	mg/l	.02	0.0171	85.6	72-125	WG140673	
Bromomethane	mg/l	.02	0.0318	159	25-170	WG140673	
Carbon Tetrachloride	mg/l	.02	0.0169	84.4	65-127	WG140673	
Chlorobenzene	mg/l	.02	0.0163	81.3	79-117	WG140673	
Chlorodibromomethane	mg/l	.02	0.0167	83.5	76-115	WG140673	
Chloroethane	mg/l	.02	0.0120	60.2	37-130	WG140673	
Chloroform	mg/l	.02	0.0159	79.5	70-119	WG140673	
Chloromethane	mg/l	.02	0.00949	47.5	39-109	WG140673	
cis-1,2-Dichloroethene	mg/l	.02	0.0151	75.7	72-128	WG140673	
cis-1,3-Dichloropropene	mg/l	.02	0.0174	86.9	86-137	WG140673	
1-chlorodifluoromethane	mg/l	.02	0.00484	24.2	14-133	WG140673	
Ethylene chloride	mg/l	.02	0.0160	79.8	60-127	WG140673	
Tetrachloroethene	mg/l	.02	0.0154	77.0	71-132	WG140673	
trans-1,2-Dichloroethene	mg/l	.02	0.0152	76.0	65-141	WG140673	
trans-1,3-Dichloropropene	mg/l	.02	0.0167	83.5	82-132	WG140673	
Trichloroethene	mg/l	.02	0.0164	82.1	81-129	WG140673	
Trichlorofluoromethane	mg/l	.02	0.0110	54.9	46-94	WG140673	
Vinyl chloride	mg/l	.02	0.0103	51.7	40-95	WG140673	
Sulfide	mg/l	.5	0.530	106.	85-115	WG140829	
Analyte	Units	Laboratory Control Sample	Duplicate	RPD	Limit	Ref Samp	Batch
Chloride	mg/l	16.6	16.8	1.02	20	R184382-5	WG140525
Nitrate	mg/l	3.62	3.68	1.59	20	R184382-5	WG140525

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Level II**

March 01, 2004

L141004

Analyte	Units	Laboratory	Control	Sample	Duplicate	RPD	Limit	Ref Samp	Batch
Sulfate	mg/l	17.6	17.7	0.872	20		R184382-5	WG140525	
Ferrous Iron	mg/l	1.00	0.970	3.05	20		WG140585-2	WG140585	
TOC (Total Organic Carbon)	mg/l	4.30	4.40	2.30	20		WG140588-2	WG140588	
Iron, Dissolved	mg/l	1.05	1.01	3.88	20		R184588-3	WG140672	
Manganese, Dissolved	mg/l	1.01	1.02	0.985	20		R184588-3	WG140672	
1,1,1-Trichloroethane	mg/l	0.0201	0.0164	20.3	28		R184397-3	WG140673	
1,1,2-Tetrachloroethane	mg/l	0.0201	0.0175	14.0	10		R184397-3	WG140673	
1,1,2-Trichloroethane	mg/l	0.0203	0.0171	16.8	16		R184397-3	WG140673	
1,1-Dichloroethane	mg/l	0.0224	0.0167	28.8	17		R184397-3	WG140673	
1,1-Dichloroethene	mg/l	0.0201	0.0157	24.7	36		R184397-3	WG140673	
1,2-Dibromoethane	mg/l	0.0202	0.0169	17.8	19		R184397-3	WG140673	
1,2-Dichlorobenzene	mg/l	0.0204	0.0166	20.9	16		R184397-3	WG140673	
1,2-Dichloroethane	mg/l	0.0227	0.0173	26.6	13		R184397-3	WG140673	
1,2-Dichloropropane	mg/l	0.0198	0.0170	15.1	14		R184397-3	WG140673	
1,3-Dichlorobenzene	mg/l	0.0210	0.0170	20.9	25		R184397-3	WG140673	
1,4-Dichlorobenzene	mg/l	0.0209	0.0169	21.0	18		R184397-3	WG140673	
2-Chloroethyl vinyl ether	mg/l	0.111	0.0992	11.1	25		R184397-3	WG140673	
Bromodichloromethane	mg/l	0.0208	0.0174	17.8	13		R184397-3	WG140673	
Bromoform	mg/l	0.0200	0.0171	15.6	18		R184397-3	WG140673	
Bromomethane	mg/l	0.0326	0.0318	2.36	20		R184397-3	WG140673	
Carbon Tetrachloride	mg/l	0.0212	0.0169	22.8	36		R184397-3	WG140673	
Chlorobenzene	mg/l	0.0199	0.0163	20.1	21		R184397-3	WG140673	
Chlorodibromomethane	mg/l	0.0203	0.0167	19.3	17		R184397-3	WG140673	
Chloroethane	mg/l	0.0152	0.0120	23.5	25		R184397-3	WG140673	
Chloroform	mg/l	0.0194	0.0159	19.8	26		R184397-3	WG140673	
Chloromethane	mg/l	0.0123	0.0094	25.9	31		R184397-3	WG140673	
cis-1,2-Dichloroethene	mg/l	0.0206	0.0151	30.6	18		R184397-3	WG140673	
cis-1,3-Dichloropropene	mg/l	0.0206	0.0174	17.2	17		R184397-3	WG140673	
Dichlorodifluoromethane	mg/l	0.0064	0.0048	28.1	28		R184397-3	WG140673	
Methylene chloride	mg/l	0.0213	0.0160	28.7	16		R184397-3	WG140673	
Tetrachloroethene	mg/l	0.0183	0.0154	17.4	32		R184397-3	WG140673	
trans-1,2-Dichloroethene	mg/l	0.0202	0.0152	28.3	27		R184397-3	WG140673	
trans-1,3-Dichloropropene	mg/l	0.0198	0.0167	16.9	16		R184397-3	WG140673	
Trichloroethene	mg/l	0.0186	0.0164	12.6	25		R184397-3	WG140673	
Trichlorofluoromethane	mg/l	0.0147	0.0110	28.6	41		R184397-3	WG140673	
Vinyl chloride	mg/l	0.0141	0.0103	30.7	36		R184397-3	WG140673	
Sulfide	mg/l	0.500	0.530	5.83	20		WG140829-2	WG140829	

Analyte	Units	Matrix	Spike	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
Chloride	mg/l	50.1	1.94	50		96.3	80-120	L140643-21	WG140525	
Nitrate	mg/l	4.74	0.0228	5		94.4	80-120	L140643-21	WG140525	
Sulfate	mg/l	48.2	0.00	50		96.4	80-120	L140643-21	WG140525	
Ferrous Iron	mg/l	2.10	0.560	1.5		103.	80-120	L141004-02	WG140585	
TOC (Total Organic Carbon)	mg/l	20.0	0.00	20		100.	80-120	L140971-01	WG140588	
Alkalinity	mg/l	235.	81.0	150		103.	80-120	L140674-01	WG140634	
Iron, Dissolved	mg/l	8.21	7.50	1		70.5	75-125	L141004-01	WG140672	
Manganese, Dissolved	mg/l	4.91	4.00	1		90.5	75-125	L141004-01	WG140672	
1,1,1-Trichloroethane	mg/l	0.0218	0.00	0.02		109.	46-143	L141175-01	WG140673	
1,1,2-Tetrachloroethane	mg/l	0.0220	0.00	0.02		110.	70-116	L141175-01	WG140673	

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L141004

March 01, 2004

1,1,2-Trichloroethane mg/l 0.0214 0.00 0.02 107. 70-122 L141175-01 WG140673

Analyte	Units	Matrix	Spike	MS Res	Ref Res	TV	% Rec	Limit	Ref Samp	Batch
1,1-Dichloroethane	mg/l	0.0243	0.00	0.02	121.	47-138	Li141175-01	WG140673		
1,1-Dichloroethene	mg/l	0.0240	0.00	0.02	120.	56-162	L141175-01	WG140673		
1,2-Dibromoethane	mg/l	0.0216	0.00	0.02	108.	74-121	L141175-01	WG140673		
1,2-Dichlorobenzene	mg/l	0.0209	0.00	0.02	104.	65-119	L141175-01	WG140673		
1,2-Dichloroethane	mg/l	0.0257	0.00	0.02	129.	48-148	L141175-01	WG140673		
1,2-Dichloropropane	mg/l	0.0227	0.00	0.02	113.	66-122	L141175-01	WG140673		
1,3-Dichlorobenzene	mg/l	0.0216	0.00	0.02	108.	62-122	L141175-01	WG140673		
1,4-Dichlorobenzene	mg/l	0.0210	0.00	0.02	105.	60-123	L141175-01	WG140673		
2-Chloroethyl vinyl ether	mg/l	0.00	0.00	0.1	0.0	0-100	L141175-01	WG140673		
Bromodichloromethane	mg/l	0.0220	0.00	0.02	110.	57-126	L141175-01	WG140673		
Bromoform	mg/l	0.0212	0.00	0.02	106.	52-130	L141175-01	WG140673		
Bromomethane	mg/l	0.0457	0.00	0.02	229.	17-150	L141175-01	WG140673		
Carbon Tetrachloride	mg/l	0.0224	0.0031	0.02	96.5	42-141	L141175-01	WG140673		
Chlorobenzene	mg/l	0.0212	0.00	0.02	106.	66-125	L141175-01	WG140673		
Chlorodibromomethane	mg/l	0.0208	0.00	0.02	104.	58-123	L141175-01	WG140673		
Chloroethane	mg/l	0.0201	0.00	0.02	101.	29-131	L141175-01	WG140673		
Chloroform	mg/l	0.0239	0.0008	0.02	116.	46-136	L141175-01	WG140673		
Chloromethane	mg/l	0.0196	0.00	0.02	98.1	26-120	L141175-01	WG140673		
cis-1,2-Dichloroethene	mg/l	0.0228	0.00	0.02	114.	59-133	L141175-01	WG140673		
cis-1,3-Dichloropropene	mg/l	0.0222	0.00	0.02	111.	77-132	L141175-01	WG140673		
Dichlorodifluoromethane	mg/l	0.0170	0.00	0.02	85.0	13-113	L141175-01	WG140673		
Methylene chloride	mg/l	0.0242	0.0009	0.02	116.	55-123	L141175-01	WG140673		
Tetrachloroethene	mg/l	0.0194	0.00	0.02	97.0	49-144	L141175-01	WG140673		
trans-1,2-Dichloroethene	mg/l	0.0226	0.00	0.02	113.	53-145	L141175-01	WG140673		
trans-1,3-Dichloropropene	mg/l	0.0205	0.00	0.02	102.	69-125	L141175-01	WG140673		
Trichloroethene	mg/l	0.0207	0.00	0.02	103.	61-141	L141175-01	WG140673		
Trichlorofluoromethane	mg/l	0.0176	0.00	0.02	88.0	24-113	L141175-01	WG140673		
Vinyl chloride	mg/l	0.0197	0.00	0.02	98.3	26-110	L141175-01	WG140673		
Sulfide	mg/l	0.960	0.00	1	96.0	80-120	L141005-01	WG140829		

Analyte	Units	Matrix	Spike	Duplicate	MSD Res	Ref Res	RPD	Limit	%Rec	Ref Samp	Batch
Chloride	mg/l	50.2	50.1	0.275	20	96.5	L140643-21	WG140525			
Nitrate	mg/l	4.76	4.74	0.271	20	94.7	L140643-21	WG140525			
Sulfate	mg/l	48.3	48.2	0.151	20	96.6	L140643-21	WG140525			
Ferrous Iron	mg/l	2.30	2.10	9.09	20	116.	L141004-02	WG140585			
TOC (Total Organic Carbon)	mg/l	20.0	20.0	0.00	20	100.	L140971-01	WG140588			
Alkalinity	mg/l	241.	235.	2.38	20	106.	L140674-01	WG140634			
Iron, Dissolved	mg/l	8.20	8.21	0.0488	20	70.1	L141004-01	WG140672			
Manganese, Dissolved	mg/l	4.86	4.91	0.839	20	86.4	L141004-01	WG140672			
1,1,1-Trichloroethane	mg/l	0.0195	0.0218	11.0	28	97.6	L141175-01	WG140673			
1,1,2,2-Tetrachloroethane	mg/l	0.0214	0.0220	2.81	10	107.	L141175-01	WG140673			
1,1,2-Trichloroethane	mg/l	0.0217	0.0214	1.30	16	108.	L141175-01	WG140673			
1-Dichloroethane	mg/l	0.0200	0.0243	19.5	17	99.8	L141175-01	WG140673			
1,1-Dichloroethene	mg/l	0.0192	0.0240	22.4	36	95.9	L141175-01	WG140673			
1,2-Dibromoethane	mg/l	0.0215	0.0216	0.511	19	107.	L141175-01	WG140673			
1,2-Dichlorobenzene	mg/l	0.0199	0.0209	4.51	16	99.7	L141175-01	WG140673			
1,2-Dichloroethane	mg/l	0.0207	0.0257	21.6	13	104.	L141175-01	WG140673			
2-Dichloropropane	mg/l	0.0210	0.0227	7.93	14	105.	L141175-01	WG140673			
1,3-Dichlorobenzene	mg/l	0.0208	0.0216	3.87	25	104.	L141175-01	WG140673			
1,4-Dichlorobenzene	mg/l	0.0191	0.0210	9.27	18	95.7	L141175-01	WG140673			
-Chloroethyl vinyl ether	mg/l	0.00	0.00	0.00	25	0.00	L141175-01	WG140673			

**ENVIRONMENTAL
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Tax I.D. 62-0814289

Est. 1970

Quantum Environmental Inc.
Mr. Tom Davis
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Quality Assurance Report

Level II

L141004

March 01, 2004

<u>Bromodichloromethane</u>	mg/l	0.0213	0.0220	3.37	13	106.	L141175-01	WG140673
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<u>Analyte</u>	Matrix	Spike Duplicate			RPD	Limit	%Rec	Ref Samp	Batch
		Units	MSD Res	Ref Res					
Brómoform	mg/l	0.0195	0.0212	8.22	18	97.4		L141175-01	WG140673
Bromomethane	mg/l	0.0382	0.0457	17.9	20	191.		L141175-01	WG140673
Carbon Tetrachloride	mg/l	0.0178	0.0224	22.8	36	73.5		L141175-01	WG140673
Chlorobenzene	mg/l	0.0206	0.0212	2.97	21	103		L141175-01	WG140673
Chlorodibromomethane	mg/l	0.0212	0.0208	1.72	17	106.		L141175-01	WG140673
Chloroethane	mg/l	0.0155	0.0201	26.0	25	77.5		L141175-01	WG140673
Chloroform	mg/l	0.0190	0.0239	23.1	26	90.8		L141175-01	WG140673
Chloromethane	mg/l	0.0158	0.0196	21.7	31	78.9		L141175-01	WG140673
cis-1,2-Dichloroethene	mg/l	0.0182	0.0228	22.3	18	91.2		L141175-01	WG140673
cis-1,3-Dichloropropene	mg/l	0.0206	0.0222	7.33	17	103		L141175-01	WG140673
Dichlorodifluoromethane	mg/l	0.0141	0.0170	18.8	28	70.4		L141175-01	WG140673
Methylene chloride	mg/l	0.0197	0.0242	20.5	16	93.8		L141175-01	WG140673
Tetrachloroethene	mg/l	0.0194	0.0194	0.206	32	96.8		L141175-01	WG140673
trans-1,2-Dichloroethene	mg/l	0.0182	0.0226	21.8	27	90.8		L141175-01	WG140673
trans-1,3-Dichloropropene	mg/l	0.0194	0.0205	5.36	16	97.1		L141175-01	WG140673
Trichloroethene	mg/l	0.0191	0.0207	7.90	25	95.5		L141175-01	WG140673
Trichlorofluoromethane	mg/l	0.0144	0.0176	20.1	41	71.9		L141175-01	WG140673
Vinyl chloride	mg/l	0.0157	0.0197	22.1	36	78.7		L141175-01	WG140673
Sulfide	mg/l	0.990	0.960	3.08	20	99.0		L141005-01	WG140829

Batch number /Run number / Sample number cross reference

WG140585: R184297: L141004-01	02	03	04	05	06
WG140657: R184316: L141004-01	02	03	04	05	06
WG140619: R184323: L141004-01	02	03	04	05	06
WG140634: R184335: L141004-01	02	03	04	05	06
WG140588: R184349: L141004-01	02	03	04	05	06
WG140525: R184382: L141004-01	02	03	04	05	06
WG140673: R184397: L141004-01	02	03	04	05	06
WG140829: R184444: L141004-01	02	03	04	05	06
WG140672: R184588: L141004-01	02	03	04	05	06

* See Attachment B of standard report for list of qualifiers.
* Calculations are performed prior to rounding of reported values

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Quantum Environmental Inc.
Mr. Tom Davis
6001 Chapel Hill Road, Suite 108
Raleigh, NC 27607

Quality Assurance Report
Level II
L141004

March 01, 2004

ESC Level 2 Data Package

The data package includes a summary of the analytic results of the quality control samples required by the SW-846 or CWA methods. The quality control samples include a method blank, a laboratory control sample, and the matrix spike/matrix spike duplicate analysis. If a target parameter is outside the method limits, every sample that is effected is flagged with the appropriate qualifier in Appendix B of the analytic report.

Method Blank - an aliquot of reagent water carried through the entire analytic process. The method blank results indicate if any possible contamination exposure during the sample handling, digestion or extraction process, and analysis. Concentrations of target analytes above the reporting limit in the method blank are qualified with the "B" qualifier.

Laboratory Control Sample - is a sample of known concentration that is carried through the digestion/extraction and analysis process. The percent recovery, expressed as a percentage of the theoretical concentration, has statistical control limits indicating that the analytic process is "in control". If a target analyte is outside the control limits for the laboratory control sample or any other control sample, the parameter is flagged with a "J4" qualifier for all effected samples.

Matrix Spike and Matrix Spike Duplicate - is two aliquots of an environmental sample that is spiked with known concentrations of target analytes. The percent recovery of the target analytes also has statistical control limits. If any recoveries that are outside the method control limits, the sample that was selected for matrix spike/matrix spike duplicate analysis is flagged with either a "J5" or a "J6". The relative percent difference (%RPD) between the matrix spike and the matrix spike duplicate recoveries is all calculated. If the RPD is above the method limit, the effected samples are flagged with a "J3" qualifier.

Quantum Environmental Inc. 6001 Chapel Hill Road, Suite 108 Raleigh, NC 27607				Alternate billing information:				Analysis/Container/Preservative				Chain of Custody Page 1 of 2													
Report to: Mr. Tom Davis				Email: tdavis@quantumcos.com								Prepared by:													
Project Description: Teer-HRC Monitoring				City/State Collected NC								ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859													
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project #: 0013-94-012	Lab Project # OUANTUM-HRCINJECTI																							
Collected by (print): <i>Tom Davis</i>	Site/Facility ID#:	P.O.#:																							
Collected by (signature): <i>H. D. Davis</i>	Rush? (Lab MUST Be Notified) Same Day 200% Next Day 100% Two Day 50%	Date Results Needed		No. of Cntrs	ALK, Dissolved Mfts 500mlHDPE-NoPres				ETHANE 40mlAmb-NoPres		FERUSFE 250mlAmb-HCl		METHANE 40mlAmb-NoPres		NO3, CO2, SO4, Cl 500mlHDPE-NoPres		SULFIDE 500mlHDPE-NaOH+ZnAc		TOC 250mlAmb-Septa-HCl						
Packed on site: Yes	Email? No X Yes FAX? No Yes				ETHENE 40mlAmb-NoPres				ALK, Dissolved Mfts 500mlHDPE-NoPres		ETHANE 40mlAmb-NoPres		FERUSFE 250mlAmb-HCl		METHANE 40mlAmb-NoPres		NO3, CO2, SO4, Cl 500mlHDPE-NoPres		SULFIDE 500mlHDPE-NaOH+ZnAc		TOC 250mlAmb-Septa-HCl				
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time																	Remarks/Contaminant Sample # (lab only)			
MW-18	G	GW		1/14/04	1445	13 X X X X X X X X X X				13 X X X X X X X X X X				METHANE 40mlAmb-NoPres		NO3, CO2, SO4, Cl 500mlHDPE-NoPres		SULFIDE 500mlHDPE-NaOH+ZnAc		TOC 250mlAmb-Septa-HCl		CoCode: OUANTUM (lab use only) Template/Prelogin T17810/P102592 Cooler #: 1505 Shipped Via: FedEx Ground			
MW-29		GW			1350	13 X X X X X X X X X X				13 X X X X X X X X X X				FERUSFE 250mlAmb-HCl		ALK, Dissolved Mfts 500mlHDPE-NoPres		ETHANE 40mlAmb-NoPres		NO3, CO2, SO4, Cl 500mlHDPE-NoPres		SULFIDE 500mlHDPE-NaOH+ZnAc		TOC 250mlAmb-Septa-HCl	
MW-29T		GW			1420	13 X X X X X X X X X X				13 X X X X X X X X X X				METHANE 40mlAmb-NoPres		NO3, CO2, SO4, Cl 500mlHDPE-NoPres		SULFIDE 500mlHDPE-NaOH+ZnAc		TOC 250mlAmb-Septa-HCl					
MW-25		GW			1250	13 X X X X X X X X X X				13 X X X X X X X X X X				ALK, Dissolved Mfts 500mlHDPE-NoPres		ETHANE 40mlAmb-NoPres		NO3, CO2, SO4, Cl 500mlHDPE-NoPres		SULFIDE 500mlHDPE-NaOH+ZnAc		TOC 250mlAmb-Septa-HCl			
MW-25T		GW			1320	13 X X X X X X X X X X				13 X X X X X X X X X X				METHANE 40mlAmb-NoPres		NO3, CO2, SO4, Cl 500mlHDPE-NoPres		SULFIDE 500mlHDPE-NaOH+ZnAc		TOC 250mlAmb-Septa-HCl					
BW-5		GW			1235	13 X X X X X X X X X X				13 X X X X X X X X X X				ALK, Dissolved Mfts 500mlHDPE-NoPres		ETHANE 40mlAmb-NoPres		NO3, CO2, SO4, Cl 500mlHDPE-NoPres		SULFIDE 500mlHDPE-NaOH+ZnAc		TOC 250mlAmb-Septa-HCl			

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks: Please note:

Flow _____ Other _____

Ferrous Iron and CO2 have 24 hr hold times.

Nitrate has 48 hr hold time.

Relinquished by: (Signature)	Date: 1/14/04	Time: 1530	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier <input type="checkbox"/>	Condition: (lab use only)
Relinquished by: (Signature)	Date: 1/14/04	Time: 1530	Received by: (Signature)	Temp: 21 Bottles Received: 78 + TB	Condition: 01c
Relinquished by: (Signature)	Date: 1/15/04	Time: 9:30	Received for lab by: (Signature)	Date: 1/15/04 Time: 9:30	pH Checked: L2, 712 NCF:

Quantum Environmental Inc. 6001 Chapel Hill Road, Suite 108 Raleigh, NC 27607		Alternate billing information:				Analysis/Container/Preservative				Chain of Custody Page 2 of 2	
Report to: Mr. Tom Davis		Email: tdavis@quantumcos.com								Prepared by: ENVIRONMENTAL SCIENCE CORP. 12065 Lebanon Road Mt. Juliet, TN 37122 Phone (800) 767-5859 FAX (615) 758-5859	
Project Description: Teer-HRC Monitoring		City/State Collected <i>NC</i>									
Phone: (919) 852-3595 FAX: (919) 852-1997	Client Project #: 0013-94-012	Lab Project # OUANTUM-HRCINJECTI									
Collected by (print): <i>Tom Davis</i>	Site/Facility ID#:	P.O.#:									
Collected by (signature): <i>TD</i>	Rush? (Lab MUST Be Notified)	Same Day 200%		Date Results Needed	No. of Cntrs					CoCode: OUANTUM (lab use only)	
Packed on Ice X	Next Day 100%	Email? No <input checked="" type="checkbox"/> Yes		FAX? No <input checked="" type="checkbox"/> Yes						Template/Prelogin T17810/P102592 Cooler #: <i>11505</i>	
Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	V601 40mLAmb-HCl					Shipped Via: FedEX Ground
MW-18	G	GW		1/14/04	1445	13 X					Remarks/Contaminant Sample # (lab only) <i>141004-01</i>
MW-29		GW			1350	13 X					-02
MW-29		GW			1420	13 X					-03
MW-25		GW			1250	13 X					-04
MW-25T		GW			1320	13 X					-05
BW-5		GW			1235	13 X					-06

*Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other _____

pH _____ Temp _____

Remarks: Please note:

Flow _____ Other _____

Ferrous Iron and CO2 have 24 hr hold times.

Nitrate has 48 hr hold time.

Relinquished by: (Signature) <i>TD</i>	Date: 1/14/04	Time: 1530	Received by: (Signature)	Samples returned via: <input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> Courier	Condition: (lab use only)
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.1 Bottles Received: 78 + ITB	0/c
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) <i>De M. R.</i>	Date: 1/15/04 Time: 9:30	pH Checked: 22.712 NCF:

Appendix G

Appendix G

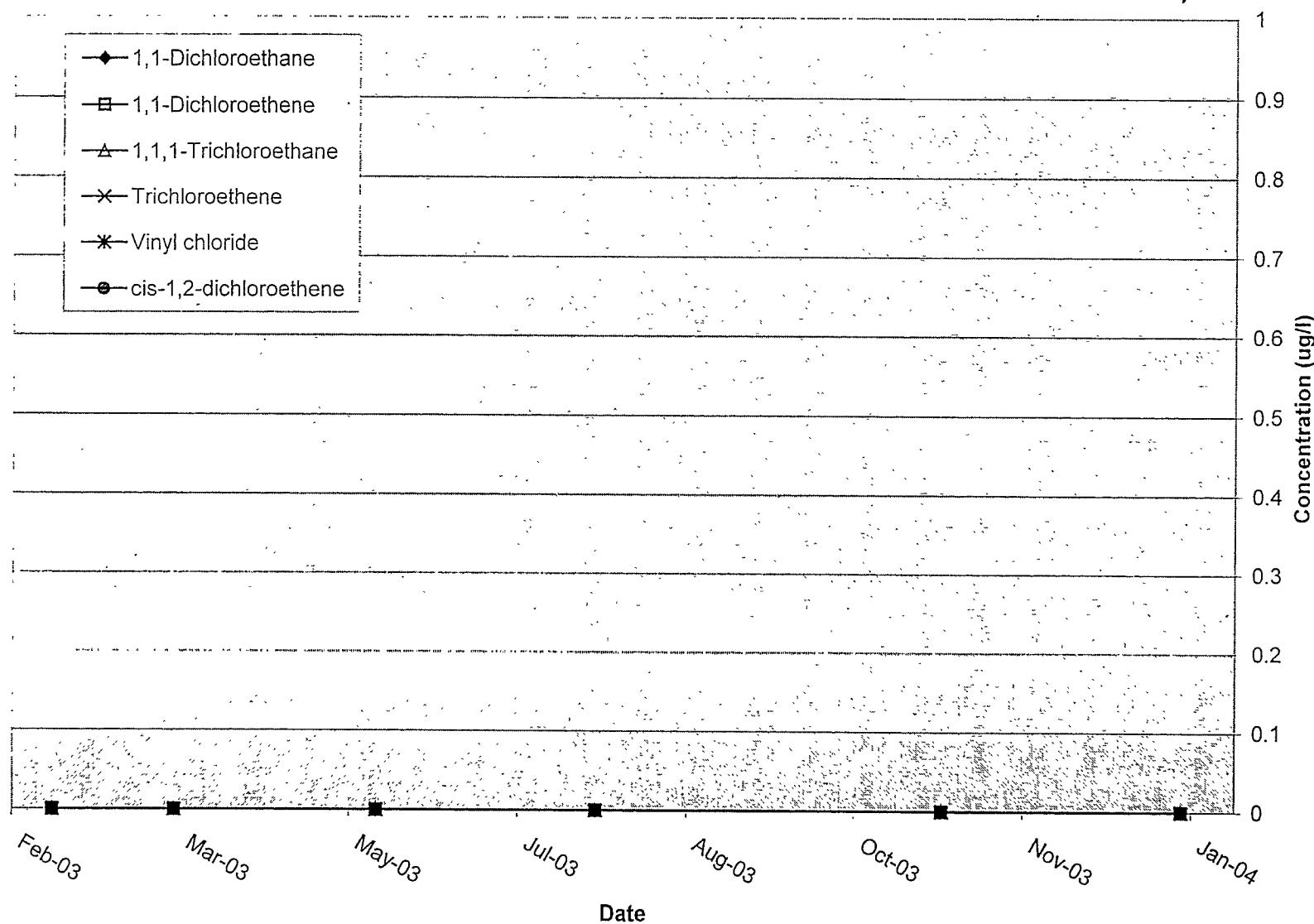
Graphs of Contaminant Concentrations

Versus Time



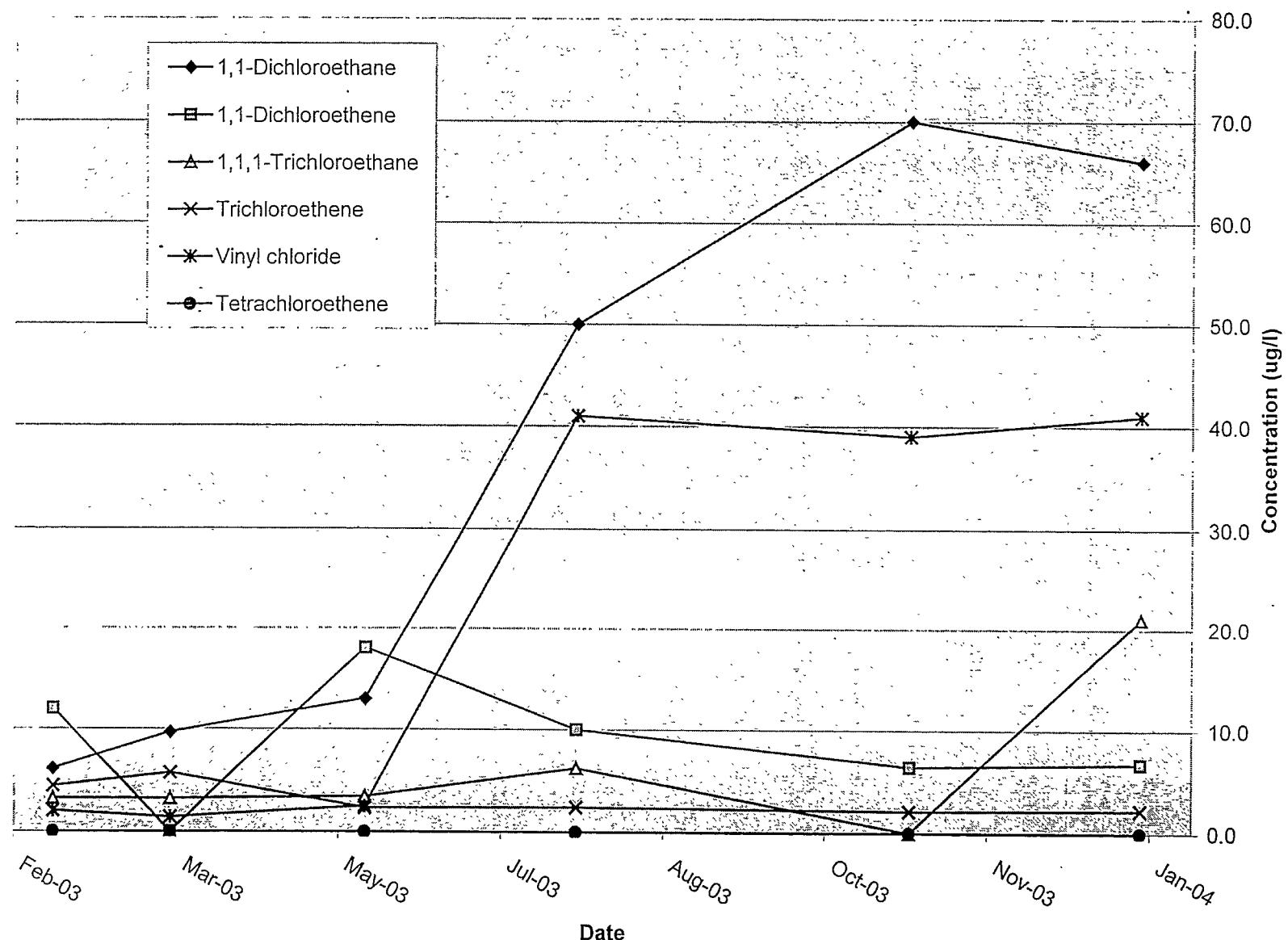
Teer HRC Data Graph

MW-29 Chart



Teer HRC Data Graph

MW-29I Chart



Teer HRC Data Graph

RW-5

